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PERSONALITY AND ACHIEVEMENT FACTORS AS INFLUENCES
ON CHURCH ATTENDANCE OF COLLEGE STUDENTS

A Thesis
Presented to
the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Patricia R. Welch
April 1972

PERSONALITY AND ACHIEVEMENT FACTORS AS INFLUENCES
ON CHURCH ATTENDANCE OF COLLEGE STUDENTS

APPROVED April 5, 1972 :
(Date)

William Anderson Floyd
Director of Thesis
Elsie J. Dotson
Luella Jean Ing

L. T. Sandefur
Dean of the Graduate School

Abstract

College students, even of the same religious preference, attend church functions with varying degrees of frequency. What factors influence the rate of attendance among students? This study investigated the relationship between reported church attendance and personality and achievement variables in a group of college juniors and seniors in a state university in the South. It was hypothesized that there would be no significant differences between students who reported attendance at church functions either (a) 7 or more times per month (High Attenders), (b) 2 through 6 times per month (Attenders), or (c) 1 or 0 times per month (Low Attenders) on grade-point standings and scores on the MMPI, Study of Values (SV), and the Form T Inventory of Beliefs. 49 students, both male and female, were included in the final study. Findings were accepted as significant at $p < .05$ following analysis of the separate variables both between the three groups and between sexes using the analysis of variance technique. Differences between the sexes were found on the Mf scale of the MMPI, as would be expected, and the Si scale of the same instrument. This difference on the Si scale revealed that females were more reserved in unfamiliar social situations than were males. No differences were found between the three groups in respect to grade-point

standings, scores on the Form T Inventory of Beliefs, or the scales on the MMPI. Significant differences were found to exist between the groups on three scales of the SV. Low Attenders scored higher on the economic scale than did either of the other groups while the group mean scores on the theoretical scale varied inversely with the amount of reported church attendance. Scores on the religious scale were in direct correspondence to the number of times of church attendance, i.e. High Attenders scoring highest and Low Attenders scoring lowest on this scale. Sex and values as measured by the SV emerge from this study as the major variables affecting the rate of church attendance. Several factors suggest that differences between the 3 groups might have been found on other variables as well, if the groups had been compared within only one sex.

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Chapter 1

Introduction

The Problem Area

Many changes occur in the behavioral patterns and attitudes of young people during their college years. Among these changes, church attendance is particularly affected.

Nearly all studies which have studied church attendance of the different college classes have found a decided tendency for the frequency of attendance at church by students to decrease as they advance in college from the freshman to senior year [Smith, 1947, p.142].

The general findings of many investigations comparing students' church attendance before and after college indicate that attendance becomes less frequent and beliefs more liberal. However, not all students decline in their church attendance during the college years. In fact, some students increase their attendance.

McClain (1970) suggests that the regularity of church attendance may be related to personality variables that are not specifically religious. He continues by saying:

If personality differences can be established in terms of regularity of church attendance, then knowledge of one's church attendance habits can provide a clue to understanding other facets of one's personality [p. 360].

Contemporary studies of the relationship between religion and personality variables have focused more on the religious beliefs and attitudes than on the frequency of participation in church functions.

Argyle (1958), a British social psychologist who has also worked in the United States, points out that a person may be very favorable toward religion without either holding religious beliefs or engaging in religious practices. A person may also give verbal assent to the teachings of religion and engage in the practice of certain formal rituals without really having a favorable attitude toward religion. In addition to a positive attitude toward religion, church attendance could also be motivated by economic, social, and other benefits. Consequently, church attendance or nonattendance in and of itself is not necessarily related to religious attitudes.

Allport (1968) makes a distinction between the types of people who attend church, contending that there is a continuum between two extremes of motivation: extrinsic and intrinsic. Those who do not fall in either category

are referred to as the indiscriminately pro-religious. The person who is extrinsically motivated toward church attendance is one for whom religious devotion has no value in its own right, but who attends church for its instrumental values of personal comfort, security, or social status. It is something to use, but not to live. The extrinsically religious person turns to God, but does not turn away from self. On the other hand, the intrinsically motivated person regards faith as supreme in its own right. One who holds such a faith strives to transcend self-centered needs, takes seriously the commandment of brotherhood that is found in all religions, and seeks a unification of being. Allport states:

Intrinsic behavior is integral, covering everything in experience and everything beyond experience; it makes room for scientific fact and emotional fact [p.151].

He further contends that intrinsicness or extrinsicness transcends formal religious structure and is found in all faiths and denominations.

Current writings seem also to indicate that the behavioral patterns and attitudes of the student of today are not drastically different from those of former years (Hadden, 1969; Heath, 1968; Parker, 1971; Sanford, 1962).

If their observations are valid, then why is it that some do not conform to the previous pattern of church attendance of the fifties? A Gallup Poll published March 5, 1970, (Why Churches, 1970) indicated that the peak in church attendance was reached in America in 1958 when the typical individual attended church on the average of at least once per week.

Negative correlations between intelligence and religious beliefs, attitudes, and experiences have been found (Brown & Lowe, 1951; Gilliland, 1940; Symington, 1935). Argyle (1958) states that intelligent children are likely to grasp religious concepts at an earlier age, but that they also are the first to doubt the truth of religion. He goes on to say that intelligent students are much less likely to accept orthodox beliefs and rather less likely to have pro-religious attitudes or mystical experiences. Religious beliefs were found to be negatively correlated with intelligence in studies by Broen (1956) and Symington (1935). Further, Hollingsworth (1933) found that doubt increased with mental age. Do these findings hold true for those students who actually continue to attend church, or just for those who indicate that they profess a religious belief? Parker (1971) noted that the question of the power

of religious belief in effecting behavior is still unanswered.

Kuhlen and Arnold (1944) found that there was a definite change in religious beliefs in adolescents as they progressed in age from 12 to 18 years of age. They further found that there was more "wondering about" religious statements and that there was a greater tolerance with respect to religious beliefs and practices with advancing age. A British investigator, Goldman (1968), noted that although adolescents may be disillusioned about religion, they show an interest in learning more about religion. Hunt and Metcalf (1968) found that in a group of college students in California that religion was second only to sex as the most discussed topic of conversation in 1964. The survey was repeated in 1967 and religion had replaced sex as the number one topic of discussion.

Today's students feel that no one has the right to tell them that their moral judgements are wrong (Thompson, 1961). They don't want anyone telling them what they must do and "that goes double for the churches." He continued:

The Biblical world seems so far away
that they cannot hear the Biblical
Word. But when they dig deeply here,
they are thrilled. Bible study is the most
exciting part of student conferences--
but back home it takes too much work
[p.357].

Time reported that the scholarly study of religion, shorn of both catechism and clericalism, is fast becoming a major subject in secular U.S. colleges and universities (Studying God, 1966). The increase of religious studies on college and university campuses has been noted by other observers as well (Gerlach, 1967; Hechinger, 1966; McLean, 1967). Spivey (1968) indicated that 90% of the state universities offered courses in religion and that 30% of them had departments of religion. He also noted that one-third of the students at the University of Rochester petitioned the University to add courses in religion in 1967.

Hence, we see that although there appears to be a lack of interest in religion as represented by the churches on the part of young people, there appears to be an increase in the objective study of religion in the classroom.

... for though many students taking religion courses are not interested in the church, their motivation for studying religion may be quite religious in nature [Spivey, 1968, p.9].

Through a factor analysis of various indices of religious activity, church attendance was found to be closest to the general factor of religious activity and thus could be regarded as the best single index for investigation purposes (Argyle, 1958). After reviewing the

literature concerning personality factors affecting the college student, Smith (1947) wrote:

We need a study which will divide students into two groups in terms of church attendance and lack of church attendance so that we can study the basic differences [p. 145].

To date, apparently this study has not been done.

Statement of the Problem

The present study primarily investigated the relationship between church attendance and personality variables of college students. Auxiliary comparisons were also made between frequency of church attendance and intelligence, scholastic achievement, sex, marital status, and religious affiliation. The following null hypotheses were tested:

1. No differences exist among students who have a high, middle, or low frequency of church attendance on personality factors as measured on the Minnesota Multiphasic Personality Inventory, the Stern Form T Inventory of Beliefs, and the Allport-Vernon-Lindzey Study of Values.

2. No significant correlations will be found between frequency of church attendance and intelligence as measured by the students' grade-point standings and their scores on the American College Testing Program.

Delimitation of the Study

This study was limited to persons classified as juniors or seniors during the school year of 1969-1970. These students must have previously indicated their religious preference as Baptist on student enrolment cards. The study was further limited to those students who were willing to complete a questionnaire and to take a two-and-a-half hour series of personality tests.

Conclusions from this study cannot be generalized to population groups other than students of Baptist preference who attend Western Kentucky University. In addition, a cross-validation study is needed before these findings are accepted as even being descriptive of Baptist preference students in this particular institution. Certainly, volunteer participants do not usually constitute an unbiased sample, and the sample totals are minimal when compared to the universe size of the Baptist preference group on this campus. Presumably, however, the study data

can provide the basis for further reflection about the relationships among such variables as personality, intelligence and church attendance. In this sense, the project is an exploratory inquiry into an area which has been basically unresearched.

Likewise, it is known that geographic variables are closely correlated with religious attitudes and behavior. Students in border and Southern states tend to be more conservative in their theology and exhibit greater regularity in their religious activities. Glass (1971) in a study of women enrolled in a private college in the South found that

As a group, Baptists tended to be more literal, conservative, or fundamental in their theological interpretations. ... The Baptist group was also significantly higher than other denominations in frequency or degree of participation in traditional religious services [p. 205].

Two-thirds of the students at Western Kentucky University profess a preference for the Baptist church (see Appendix A) and the overwhelming majority identify themselves as Southern Baptist. The denomination is well known as a somewhat conservative and fundamentalist religious body (Argyle, 1958). Students at Western also tend to come from the lower-middle and upper-lower socioeconomic groups where similar ideologies are espoused (Human Potential

Development Project, 1970). Southern Baptist mainly come from low economic and social status (Hudson, 1963).

Many of Western's students also come from rural areas or small towns with 40% of them having attended rather small, non-comprehensive high schools (Human Potential Development Project, 1970). Such a population should attend church more frequently (Lenski, 1953).

Therefore, the attitudes and behavior of Baptist preference students at the institution studied probably would not be typical of college students--e.g., Unitarian students in New England. As a result, no attempt should be made to apply the conclusions derived from this study with one religious group in a particular geographic locale to other denominational groups in other regions of the country.

Definition of Terms

High Attenders, Attenders, and Low Attenders

These terms were operationally defined in the following way:

High attenders are individuals who indicated that they attended during a month's time an average of seven or more of the institutional church functions listed on a given questionnaire (See Appendix B).

Attenders are those who attended an average of two to six functions during a month.

Low attenders are individuals who attended church functions one or no times per month.

Baptist Preference Students

Baptist preference students are students who indicated at the time of their registration for the fall semester of 1969-1970 that they preferred the Baptist denomination.

Institutional Church Functions

Institutional church functions are those organized and sponsored by an institutionalized church: the word institutional, according to Webster's New Collegiate Dictionary (1953), means "highly organized so as to include various charitable, educational and other activities [p.436]." This definition shall serve to distinguish the institutional church from the concept of a church as a body of persons.

Church

The church is defined in article VI of The Baptist Faith and Message (1963), as follows:

A New Testament Church of the Lord Jesus Christ is a local body of baptized believers who are associated by covenant in the faith and fellowship of the gospel, observing the two ordinances of Christ, committed to His teachings, exercising the gifts, rights, and privileges invested in them by His Word, and seeking to extend the gospel to the ends of the earth [p.12-13].

Chapter 2

Review of Literature

The search for literature concerning church attendance of college students led to the perusal of a wide variety of sources -- psychological, sociological, religious, educational, and counseling journals and books. In addition, all of the Psychological Abstracts were reviewed for the years from 1960 through 1969.

The libraries used in the search for relevant past research were associated with Western Kentucky University, Towson State College (Baltimore, Maryland), The Johns Hopkins University (Baltimore, Maryland), and Saint Mary's Theological Seminary (Baltimore, Maryland). The Enoch-Pratt Free Library of the City of Baltimore, Maryland was also consulted.

College Student Church Attendance

There seems to be a general consensus among investigators who have studied the patterns of church attendance and religious beliefs among young people that the late teens and the twenties is the least religious period in an individual's life (Allport, Gillespie, & Young,

1948; Argyle, 1958; Cole, 1959; Smith, 1947). However, many indicate that by the time the individual is in his thirties, he returns to the idea that religion again has value for him. Allport, in his classic work, The Individual and His Religion, gives the best description of this finding:

There is good reason to suppose that on the average the early and middle twenties are, in fact, the least religious period of life. It is then that the alienation from parental codes has become complete. It is then also that youth feels most secure in pursuing his life ambition. He has not yet had the rude shock that comes to nearly all adults when they first realize that their abilities and probable accomplishments are, after all, not likely to equal their aims and pretensions. ... It is often in the thirties that people first decide the parental code is, after all, not a bad one to follow [Allport, 1950, p. 41-43].

A doctoral dissertation at the Southern Baptist Theological Seminary by McKelvey (1971) consisted of a study of presently active adult church members who were church dropouts during adolescence. He gave the following reasons which were indicated by his subjects as their reasons for dropping out of church:

1. Uninteresting youth programs.
2. Church failing to speak to the needs of youth.
3. Friends not attending church.
4. Strict social prohibitions.

5. Lack of church attendance by parents.
6. Change of residence such as entrance into college or the military.

Similar reasons for adolescents dropping out of church are also given by Goldman (1964).

A study of 4000 Baptist students, conducted by the Sunday School Board of the Southern Baptist Convention on 421 campuses where there was some kind of Southern Baptist Student work, revealed that over one-half of the students indicated that they do not attend Sunday School as much as they did while in high school. Fifty-five percent indicated that they "sometimes slept late on Sunday morning instead of going to Sunday School" --- the greatest percentage of these being in the senior class. There was also a significantly higher number of males than females in this category of "sleeping late" (Sunday School Board, 1968). Another study sponsored by this same organization used 40 randomly selected colleges and a total of 1,628 student subjects and obtained the results shown in Tables 1 through 3. From these tables we see that while there was a considerable drop in weekly attendance in Sunday School and Training Union, there was a lesser drop in the attendance of morning worship services. There was also an increase in both attendance at Sunday School and at

Table 1
Percentage of Sunday School Attendance

| Time | Frequency of Attendance | | | |
|-----------------------------------|-------------------------|-----------------------|--------------|-------|
| | Weekly | Once or Twice a Month | Occasionally | Never |
| When a Senior in High School | 82.9 | 5.0 | 7.0 | 3.2 |
| Present practice while in College | 47.4 | 11.3 | 16.8 | 19.3 |

Table 2

Percentage of Morning Worship Service Attendance

| Time | Frequency of Attendance | | | |
|--------------------------------------|-------------------------|-----------------------|--------------|-------|
| | Weekly | Once or Twice a Month | Occasionally | Never |
| When a Senior in High School | 82.5 | 7.7 | 5.8 | 1.6 |
| Present practice while in College | 60.1 | 17.7 | 15.3 | 4.5 |

Table 3
Percentage of Training Union Attendance

| Time | Frequency of Attendance | | | |
|--------------------------------------|-------------------------|-----------------------|--------------|-------|
| | Weekly | Once or Twice a Month | Occasionally | Never |
| When a Senior in High School | 49.4 | 7.7 | 16.3 | 17.3 |
| Present Practice while in College | 25.5 | 6.9 | 14.8 | 40.6 |

worship services in the once or twice a month category (Sunday School Board, 1966). When compared to other denominational groups in a private Southern college, Baptist students were significantly higher in frequency or degree of participation in traditional religious services (Glass, 1971).

Most of the studies which have shown a change in college students as they progress from their freshman to senior years have dealt with a change of beliefs rather than a change in behavior (Brown & Lowe, 1951; Glass, 1971; Havens, 1964; Martin & Nichols, 1962; Nelson, 1938; Smith, 1947; Webster, Freedman & Heist, 1962). Allport was perhaps the pioneer in the study of college students and their religious behavior. In his studies of the post-war undergraduates at both Harvard and Radcliff, some 15 months after the end of World War II, he found that seven out of ten (82% of the females and 68% of the males) felt they needed religion in their lives, and that veterans were consistently 10-15% less religious than the nonveterans. "Parental influence" was rated as the greatest influence on positive feelings for religion for the male, while the greatest influence for the female was "fear" or insecurity. He also found, out of a sample of 414 undergraduates, the following results concerning church attendance:

1. The veterans at Harvard University indicated that 32% of them attended church an average of once a month or more in the past six months. The nonveterans attended at a rate of 52%, while the Radcliffe girls indicated that 58% of them went to church once a month or more.
2. Sixty-eight percent of the Harvard veterans indicated that they had attended church only once or twice or not at all during the past six months. The nonveterans reported only 40% in this category and the Radcliffe girls, 42%.

Therefore, we find that this study in 1946 showed only 38% of the females and 17% of the males attended church every week, but that the majority did so occasionally.

There is some evidence that church participation tends to become less frequent as students progress through college (Argyle, 1958; Smith, 1947). However, a study covering ten colleges found a sharp drop in religious activity during the first one or two years in college, followed by a revival of interest during the last year or two (Leuba, 1921).

One study (Goldsen, Williams, & Suchman, 1960) reported that the college students surveyed responded in

the following way to the question "How often do you attend religious services?":

| | |
|--------------------------------------|-----|
| Once a week or more----- | 27% |
| About twice a month----- | 14% |
| About once a month----- | 12% |
| Mainly on important holidays----- | 21% |
| Never, or almost never----- | 25% |

In three independent surveys done over a period of nine years (from 1955 to 1964) using undergraduates at the University of Texas, it was found that the number of respondents indicating that they go to church once a week or more decreased from approximately 45% of the students surveyed in 1958 to a little over 29% of those surveyed in 1964. On the other hand, the number of respondents who indicated that they never or almost never go to church increased: nearly 12% in 1958 and 20% in 1964. This difference was significant at $p < .001$ (Young, Dustin, & Holtzman, 1966). Thus, it is not only common for church attendance to decrease among college students, but research shows that the attendance decline is showing an almost annual upswing.

In an attempt to answer the question "Why?", a study of three mid-Western schools reported that pressures of time and change in belief are the principal reasons for the decline (Hadden & Evans, 1965). At one school, a religiously

affiliated college, almost one-third of the freshmen reporting less attendance gave "freedom from parents" as the primary reason. The lowering of attendance during college comes perhaps more from the competition of other activities than from any actual loss of interest (Cole, 1959).

Reports on attendance of campus religious programs are typified by the following study made at Wayne State University which indicated that the religious organizations reach only a small percentage of the students. Six out of ten students said they never attended a social function; eight out of ten had never attended a lecture sponsored by one of these groups. Three-fourths of the students claimed membership in a church organization, but wide variety in attendance was reported (Sherfelt, 1963).

Stewart (1967) describes longitudinal studies done with early adolescents. Hopefully, he plans to continue this work as the population group enters college or the labor market. Bender (1958) conducted a longitudinal study of 96 graduates of the class of 1940 at Dartmouth and found that there was an increase in religious orientation marking the passing years. In 1940 a minority of those studied ($N=1244$) attended church regularly, in 1955 a majority attended weekly or monthly and in 1965, 62% of the responding 96 original subjects were church attenders.

(There were only three Baptists in the original 1940 study, however, and none were attending in 1965).

Significant results of Bender's study can be summarized as follows:

1. Nonattenders were reliably different in evidencing greater creativeness.
2. There were more nonattenders in the professions.
3. There was a significant difference in the number of books read per year in favor of the nonattenders.
4. Scores on the Scholastic Aptitude Test were higher for nonattenders, and as seniors the nonattenders performed better on the Graduate Record Examination.
5. Percentagewise, there was no significant difference between attenders and nonattenders with respect to religious impulse: a generic term having humanitarian characteristics such as the search for wisdom, the brotherhood of all men, the meaning of being, and a reverence for life.
6. The scholastic records of the subjects showed no significant difference with respect to grade points earned.

7. On the Study of Values given in 1940, the average highest score was the political scale while the lowest was the religious scale. In 1955 the religious values scale had risen to the level of the political scale.

Numerous studies show positive correlations of church attendance with various variables such as religious beliefs and attitudes and practices of parents (Hadden & Evans, 1965; Martin & Nichols, 1962; McKelvey, 1971; Sunday School Board, 1968), and prejudice (Adorno, Frenkel-Brunswik, Leveinson & Sanford, 1950; Allport & Kramer, 1946; Allport & Ross, 1968; Pettigrew, 1959; Stouffer, 1955). Hadden & Evans (1965) found negative correlations between the church attendance of college students and the educational attainment of their parents, while Benson (1966) discovered church attendance to be negatively related with meaninglessness.

McClain (1970) found that there were significant differences on some of the scales of the Edwards Personal Preference Schedule between groups of college students who attended church with varying degrees of frequency. In all cases where significant differences were found, with two exceptions, the groups of subjects who attended church most frequently were also the groups having mean scores

closest to the norms. In all cases the most deviant scores were obtained by the group which attended church least (rarely or never). From this study McClain concluded:

All of these characteristics suggest that problems in socialization may be associated with nonattendance among these subjects. ... On the positive side it appears that nonattendance or irregular attendance has the advantage associated with autonomy, independence, and self-sufficiency [p. 364].

He further suggests that creative people are more likely to be found among those who do not attend church regularly.

From a representative sample of American church members, it was found that those who had attended church in the past month were less tolerant of nonconformists such as socialists, atheists, or communists than those who had not attended during that time. However, the intolerance tendency among churchgoers existed only when educational level was held constant (Stouffer, 1955).

A number of studies show that frequent church attenders are less prejudiced than infrequent attenders and often even less prejudiced than nonattenders (Allen & Spilka, 1967; Holtzman, 1956; Pettigrew, 1959; Pinkney, 1961; Struening, 1963). This would tend to support Allport's concept of extrinsic vs. intrinsic motivations for church attendance. In a study of Southern Baptists, Feagin (1964) found that extrinsic and intrinsic items represented two independent

dimensions rather than the continuum espoused by Allport. He further discovered that only extrinsic orientation was related to intolerance toward Negroes, that orthodoxy was not related to the extrinsic or intrinsic orientation, but that fundamentalism of belief related positively to prejudice. Churchgoers who are indiscriminately pro-religious (neither extrinsic nor intrinsic) are more prejudiced than those who are consistently extrinsic in motivation, and are very much more prejudiced than the consistently intrinsic types (Allport & Ross, 1968). Friedrichs (1959) found that persons attending more than 60 services in a year exhibited greater tolerance than those who attended less than ten times.

A greater frequency of church attendance by females than males has also been reported (Allport et al., 1948; Argyle, 1958; Goldman, 1964; Lenski, 1953; McKelvey, 1971; Smith, 1947; Sunday School Board, 1968). McClain (1970) found that the more regularly the male subjects attended church the greater was their preoccupation with inner experiences, while the opposite was true for his female subjects. Other studies (Chesser, 1956; Gorer, 1958) indicate that married people attend church much less frequently than do single people.

Participation in religious activities appears also to be correlated with performance on scholastic achievement and

aptitude tests (Kosa & Schommer, 1961). The same investigators found no evidence that there was higher scholastic achievement associated with less pro-religious attitudes. They further indicated that a church-oriented environment directs the interest of the individual toward religion and thus creates conditions which lead to more religious participation as well as greater religious knowledge.

Greeley (1965-1966) found in his study of students in doctoral programs in the top 12 graduate schools in this country that only 21% indicated that they attended church weekly while 14% reported that they attended two or three times a month. Fifty-three percent reported that they never attended church, attended yearly, or only two or three times yearly. For the Protestant student, Freeley defined "religious" students as those who attend church two or three times a month and found that 10% of the "religious" students reported an "A" average, while 8% of the "nonreligious" students had that grade average.

In studying older adolescence, Bryant (1959) matched samples of freshmen and senior college students scoring respectively high and near the mean of the ACE scores on the factors of age, sex, type of course, and religious denomination. An analysis of responses to an instrument sampling five areas of religious thought supported the

conclusion that in their religious thinking University freshmen of high intellectual ability resembled seniors rather than freshmen and that progress through college was marked by shifts from "conservative" toward "liberal" thought.

In a study mentioned earlier (Young et al., 1966) it was found that the cumulative grade-point average was not related to the religious scale on the Allport-Vernon-Lindzey Study of Values in 1958, but was inversely related to attitude toward organized religion in 1964. Goldman (1964) in discussing the drop in church attendance by adolescents stated:

It is curious, as we have noted before, that at a time when real religious insights become possible there is a strong tendency for negative attitudes to occur. It is interesting that this is particularly true of less able pupils, who are obviously less equipped to wrestle with the intellectual difficulties, posed by the need to move from a childish to an adult framework of religious belief. For many of them the easiest solution is not to wrestle with the problem at all, but to give them up and retreat into indifference or hostility [p. 241].

Self-report Inventories and the
Social Desirability Variable

There are those who would question the use of questionnaires or self-report inventories in research, saying that these devices are subject to a great deal of faking and error on the part of the person completing them. In a study with college students who were told to take a test as if they were applying for a particular occupational position, it was found that their answers on the test corresponded with the stereotype for each of the occupations that they were given (Wesman, 1952). This result, concluded the investigator, was evidence that faking does occur, at least in the college population. A study using people in real life situations and dealing with this same question of faking resulted in similar results with the conclusion that a large percentage of people attempt to, or probably do fake on these instruments in such a way as to put themselves in the most favorable light possible (Green, 1951).

The use of questionnaire techniques seem to be especially susceptible to two sources of error: conscious distortion of the data and lack of awareness by the individual of all or the majority of factors which help determine his reaction (Stern, Stein, & Bloom, 1956). Edwards (1957), who first investigated the social

desirability factor saw it as a tendency to put up a good front and that the respondent was largely unaware of his actions. He further suggested that differences on the various personality assessment instruments between groups in an experimental setting may be due to the social desirability variable rather than the personality variable named by the inventory. The tendency to put up a good front, according to Anastasia (1968), may indicate a lack of insight into one's own characteristics--self-deception or an unwillingness on the part of the respondent to face up to his limitations.

With two exceptions, a survey of validation studies on questionnaires outlining the results of 380 relevant investigations concluded that they are generally unfavorable to personality questionnaires. One of the exceptions mentioned is the Minnesota Multiphasic Personality Inventory. A considerable majority of studies on this instrument show significant differences between various abnormal groups and normals (Ellis, 1946).

Bonney (1960) defends the validity of the responses to personality questionnaires by contending that the tendency to fake or misrepresentation on such instruments should not be regarded as sufficient grounds for rejecting them. The chief purpose of such questionnaires is not to

obtain objective data but to obtain subjective data on how each person feels about various aspects of his personality. A study to demonstrate how dependable people's estimates of their behavior were in regard to the way in which they mark questionnaires found that from all behaviors studied, 70% were either completely accurate or approximately correct while only 15% were grossly inaccurate. It was also found that the subjects erred by over-estimating rather than by underestimating those behaviors which affect their social status, namely, attendance at Sunday School and spelling scores (Bonney, 1941). Dudycha (1950) found an 80% accuracy in responses of his college students in respect to their punctuality.

After discussing the problems involved in the use of questionnaires and paper-and-pencil personality tests, Vernon (1953) concluded that despite their extreme weaknesses and dangers, they should not be entirely condemned. Given under suitable motivating conditions, well-constructed instruments can be of value both for experimental research and in clinical or other applied psychological work.

Thus, it appears that although there are many questions concerning the validity of the responses on questionnaires and self-report inventories, there is also sufficient evidence to warrant their use in research. However, these limitations should be kept in mind when conclusions are drawn from such research.

Assessments of Personality

Stern Form T Inventory of Beliefs

G. G. Stern, professor of psychology at Syracuse University, developed the inventory based on a substantially modified version of the California scales for authoritarianism developed by Adorno et al. (1950). The inventory was developed in conjunction with the Attitudes Sub-Committee of the American Council on Education Cooperative Study of Evaluation in General Education. The intent of this scale was to facilitate the identification of a body of students whose personal needs and values might be expected to lead to conflict and thus impair their performance in a particular type of academic environment (Stern, 1962).

Form T was developed as a modification of Form S and included a third dimension not found in the original inventory. The respondent is classified on a personality configuration according to where he falls on a grid. Scale #1, or the abscissa, being the Stereopath (S) - Nonstereopath (N) continuum, while Scale #2, or the ordinate, formed the Rational (R) - Irrational (I) dimension. Thus, nine configurations emerge: the pure S's, N's, R's, and I's, and the overlapping areas termed Stereopathy-Rationals (SR), Nonstereopathy-Rationals (NR), Stereopathy-Irrationals (SI), Nonstereopathy-Irrationals (NI) and the Unclassified (U) (Stern, 1962).

Since the original design was to identify individuals who would experience difficulty in particular types of academic environments, it was hypothesized that the S personalities should tend to view a general educational program as diffuse and lacking in specificity. They were also expected to show poor grades and to experience more emotional disturbances as well as a higher frequency of withdrawal from such a program than would N subjects (Stern, 1962).

Study results show that this hypothesis concerning the general educational program was true but was a function of the institution from which the subjects were drawn. Table 4 gives the results of studies conducted in selected institutions. Hence, it appears that the more S's at an institution, the fewer N's and vice-versa. This is to be expected since an institution which is likely to attract and sustain S-type persons, for example, is not likely to prove compatible to N's (Stern, et al., 1956).

The I's appeared in largest numbers among samples of high school and Southern College students. West Point cadets appeared to be equally divided between S's and R's. However, samples of psychologists, theological students from liberal Protestant denominations and Reed College students were just as predominantly divided between N's

Table 4
 Percentage of Subjects in each Category of the
Inventory of Beliefs, Form T in Various Institutions

| Institution | Categories | | | | No. of Subjects |
|------------------|------------|----|----|----|-----------------|
| | S | N | R | U | |
| Southern College | 12 | 4 | 24 | 60 | 73 |
| Northern College | 8 | 18 | 4 | 70 | 636 |
| High School | 29 | 0 | 14 | 57 | 210 |

Note.-from Stern et al., 1956

and R's. There seems to be a tendency for either S's or N's to predominate in a given institution. R's appear as often in the company of S's as they do with N's, but the more rarely observed irrationals were found only with S's (Stern, 1962).

Floyd (1963) used the Form T Inventory of Beliefs at a Southern, religiously-affiliated woman's college and found that there was a significant difference of the means on both scales between freshmen and sophomores at better than the .001 level. Other changes occurred in other years but none so drastically as that between the freshman and sophomore years. Generally, Floyd found that the freshman class fell into the Unclassified category, but that both the sophomore and the junior-senior groups resulted in Stereotyped-Rationals on the mean personality configuration. When the section of the country in which the school is located is considered, he concluded that this classification for the latter years was not surprising.

Studies of an extensive nature were done at the University of Chicago with the comparison of N's, S's, and R's. They may be summarized as follows:

1. The N undergraduate tended to be a first generation American with no religious affiliation and the child of middle-

European Jewish parents, both of whom had received an extensive higher education.

He was far above the average in intelligence in comparison with other students in the same institution, excelled in the social sciences and the humanities and had selected a professional career in one or the other of these areas.

2. The S undergraduate was almost the complete reversal of this pattern. His family had lived in this country for several generations and were either Roman Catholic or else members of fundamentalist or evangelical Protestant denominations. He was average in intelligence in comparison with fellow students but disliked and did poorly in the social sciences and humanities. His vocational choices lay in business, law, medicine, or engineering and he saw the purpose of higher education as that of specific vocational preparation. His academic approach stressed detailed organization and structure.

3. The R's came from diverse home backgrounds, had a variety of religious affiliations, and fell into no specific occupational categories. They were more intelligent than the S's but less intelligent than the N's: their achievement records also showed similar results. They emphasized intellectualization and abstraction.

The only thing known about the irrationals at the present time is that they appear to be restricted to younger, less well-educated samples (Stern, 1962).

Another study at Syracuse University resulted in profiles generally consistent with those in Chicago. Differences in intelligence, however, were significant at the .01 level: N's being far above the group average, R's somewhat higher than the group average, and S's identical with the ideological unidentifiable students. The I's were below the group average. The groups also differed significantly at the .01 level in grade-point average at the end of their first year (Stern, 1960).

Donovan (1957) reported that N's prefer activities reflecting autonomous or independent behavior, exhibit strong needs for achievement in academic or scholarly pursuits, and have marked humanistic, expressive or

intimate inter-personal interest. S's were deferent and submissive, inhibited expressions of feeling, stressed orderliness and control, were fearful of activities likely to elicit feelings of inferiority and rejected markedly intellectual or introspective activities. The R scale draws from items that indicate an individual who is interested in intellectual activities, is introspective, and is understanding and outgoing without the aggressive or harm avoidant behavior of the N. The R is more autonomous and tends to be more objective and less idealistic than the S.

Stern et al. (1956) added that the N's were nurturant toward younger persons, while the S's deferred and approved of authority figures and were less nurturant toward younger persons than the N's. S's were also oriented toward achievement of financial status and security. The R's, they added, were indifferent toward social and personal relations and passively conformed more to social pressures than did N's. They also had a more explicit fantasy life from which they achieved some of their basic satisfactions through conscious daydreams and wishes which were explicitly recognized and valued as such.

Over forty reliability studies of the several existing versions of the inventory have been made. Samples have ranged from nine to 636, the majority involving groups of more than 100 subjects. These have yielded reliability

coefficients ranging from $+.68$ to $+.95$, the median value being $+.86$ (Stern et al., 1956, p. 200).

Study of Values

The Study of Values, hereafter to be referred to as the SV, was developed by Allport, Vernon, and Lindzey. Originally published in 1931, the study was revised in 1951 and 1960. The latest edition simplified and modernized certain items, revised and shortened the scoring system, provided fresh norms, and increased the reliability of the test (Allport, Vernon & Lindzey, 1960).

Items for the SV were first formulated on the basis of the theoretical framework provided by Spranger (1928) in his Types of Men which defends the view that the personalities of men are best known through a study of their values. Six types emerged through his work and were integrated into the SV forming six scales: theoretical, economic, aesthetic, social, political and religious. Criterion for the final item selection was internal consistency within each of the six areas.

The resulting profile does not tell how high or low a given person stands on the economic, theoretic, or religious value in the population at large, but only which value is relatively most, or next most, or least prominent in his own life [Allport, 1968, p.98].

The split-half reliabilities of the six scores range from .84 to .95. Retests after one or two months yielded reliability scores between .77 and .93 (Allport et al., 1960). Validity has been checked partly by the method of contrasted groups. Profiles of various educational and occupational samples exhibit significant differences in the expected direction, i. e. medical students scoring highest in the theoretical area while theological students are highest in the religious area. Significant relationships with the Thurstone attitude scales and the Strong Vocational Interest Blank have been reported in the expected directions (Anastasi, 1968).

The SV was standardized on a college population. Virtually all the students were from liberal arts colleges which were diversified by region and type. Norms were given for each sex as well as the combined college population. The manual further gives the norms at various educational institutions through out the United States (Allport et al., 1960).

Because this instrument has been in existence for the past forty years, the studies using it are overwhelming in number. Therefore, the literature reviewed in this paper shall be confined to a sampling of those studies which deal specifically with college populations.

Several studies have dealt with the possibility of differences in scores between groups of various types in the college community. One such study began in 1957 with 89 freshmen and was conducted over the four year period those subjects were in the university. Results indicated that as they progressed through college, both males and females tended to become more oriented toward aesthetic aspects of their environment and less toward the quest of the meaning of life, as measured by the religious scale (Stewart, 1969). Heath (1968) found the same shifts among college students of the sixties. An earlier study by Whiteley (1936) also demonstrated this tendency.

A study comparing teacher-education students with a matched sample drawn from the university at large, resulted in significant differences for both male and females on the religious scale, the teacher-education majors scoring the higher. When broken down by sex, the female teacher-education students were higher on the theoretical and religious scales but lower on the economic and aesthetic scales than were females from the sample of the campus at large. Male teacher-education students were higher on the religious scale but lower on the economic scale than their experimental counterparts. All of the above differences were significant at $p < .01$ (Ricco, 1960).

Gordon (1967) studied differences between freshmen and seniors in the same institution on the SV. Using 99 first semester freshmen and 46 last semester seniors he found the greatest difference on the religious scale between Catholic freshmen and seniors, the freshmen having the higher score. The difference between Protestant freshmen and seniors was considerably lower but in the same direction. Political attitudes were modified from the freshmen to senior years and as mentioned earlier by other studies, there was an increase in aesthetic values.

In a comparison of students on denominational and public university campuses between the sophomore and senior years, Clark (1954) discovered a higher theoretical score for the non-denominational students. The combined groups of sophomores ranked theoretical and religious values higher than did the combined group of seniors; the latter group, however, ranked political values higher than the combined group of sophomores.

A considerable number of studies have also been conducted on the religious scale alone, including one on the construct validity of that scale by Hunt (1968). His findings indicate that the person who scores high on this scale is an activist who approaches religion intellectually and rationally, generally endorses traditional forms of

Christian institutions and seeks to apply religious principles in his daily life. Sproel (1961) suggests that the religious scale is essentially a measure of Christian religious orthodoxy. A correlation of $r=.78$ was found between the religious scale and Thurstone's scale for measuring attitudes favorable to the church (Hunt & Metcalf, 1968), while Bender (1958) reported a $r=.78$ correlation between this scale and church attendance. Protestants who were "conservative" (in the sense of being opposed to change) scored higher on the religious scale than did "non-conservative" protestants (Pryon, 1961).

Decreases on the religious scale were found to occur between the freshman and senior years of health and education majors (Arsenian, 1943). Harris (1933) found that most of the 388 Lehigh students in his study scored lower on the religious scale than on any other scale of the instrument.

While not directly related to this study, passing attention should also be given to the research which indicates that increases in the scores on the religious scale have been found as the subjects approach middle age (Bender, 1958; Kelly, 1955; Nelson, 1956). Another interesting note is found in a study which concluded that

mature men scored lowest on the religious scale and highest on the social scale (Heath, 1965). Hunt (1968) suggests that Heath's results could be due to either less direct training in religion or the ipsative nature of the scales of this instrument.

Minnesota Multiphasic Personality Inventory

This instrument is perhaps the most widely known of all personality measuring devices and thus does not need a historical background in this paper. It "... is designed to provide an objective assessment of some of the major personality characteristics that affect personal and social adjustment (Hathaway & McKinley, 1967, p.7)."

References to this instrument shall use the common MMPI abbreviation. The various scales shall be referred to by their familiar abbreviations also: L (lie), F (validity), K (correction), Hs (hypochondriasis), D (depression), Hy (hysteria), Pd (psychopathic deviate), Mf (masculinity-femininity), Pa (paranoia), Pt (psychasthenia), Sc (schizophrenia), Ma (hypomania) and Si (social introversion).

Test-retest reliability coefficients on the individual scales have been found, ranging from .46 on the L scale using a "normal" sample (Cottle, 1950) to .93 on the F

scale using psychiatric patients (Holzberg & Alessi, 1949). Other test-retest reliability studies have been conducted (Hathaway & McKinley, 1942; McKinley & Hathaway, 1942, 1944) on only six of the scales (Hs, D, Hy, Pd, Pt, & Ma). Their correlation coefficients range from .57 on the Hy scale to .83 on the Ma scale using "normals" and a retest interval which varied from three days to more than one year.

As was noted from the correlations given above, there exists a wide range in the reliability coefficients. This is partly due to the type of population being tested, i.e. hospitalized patients or "normals." Norms also vary with the population used. College students consistently score above 50 on some scales (Clark, 1954; Gilliland & Colgin, 1951, Welsh & Dahlstrom, 1956). One study reported that 39% of their 600 college student sample received scores above 70 on one or more scales (Gilliland & Colgin, 1951).

Validity data for the MMPI is not found in the manual (Hathaway & McKinley, 1967) but there have been attempts to determine validity scores for the instrument (Hathaway & Meehl, 1951; Hathaway & Monachesi, 1961). These have taken the form of "atlases" which are collections of case histories. Similar profiles are lumped together under simplified code designations. By comparing a profile with those given in the atlases the examiner should be able to glean the generalities associated with that particular profile.

A study of the internal measures of testee validity by several investigators showed that when a group of subjects who were asked to deliberately fake abnormal (but not sufficiently abnormal for institutionalization) took the test, all of their scores were significantly raised except for the L score. Attempts to fake good were less successful, the major differences being in the L, F, K, and Pd scales, in that order (Adcock, 1965).

Relevant research using the MMPI to discover personality differences between groups who reported varying degrees of religious participation was practically nonexistent. Again, most studies using the MMPI and religious variables have dealt with religious beliefs rather than behavior. A study by Tillegen, Gerrard, Gerrard, and Butcher compared members of a serpent handling cult with members of a conventional, established denomination. The snake handlers obtained higher average scores on the Pd and the Ma scales than did members of the conventional denomination. The latter group scored higher on the K and the Hy scales, and when age was considered, extremely high scores were found for the older members of both sexes of this group on the D scale ($p < .05$).

Another study using students in introductory classes at a state college in the South ($N=161$) used, among other self-report inventories, the MMPI and the Religious

Participation Scale. The least amount of generalized anxiety and insecurity was found among the high religiosity groups when compared to the intermediate and low religiosity groups. The low religiosity group showed the greatest amount of generalized insecurity ($p < .001$) (Williams & Cole, 1968).

A study comparing college students on the MMPI by classifying them according to their scores on the Inventory of Religious Beliefs into "believers" and "non-believers" showed a similar profile. "Believers" as a group had higher morale as reflected in the higher tendency toward depression by the "non-believers". The "non-believers" were also felt to be more pessimistic with regard to the future (Brown & Lowe, 1951).

When students are broken down by class and compared on the MMPI, it has been found that college entrants are more introverted as measured by the Si scale than are high school seniors (Sanford, 1962). College seniors were found to consistently score higher on the various MMPI scales than did freshmen, thus indicating more psychological or physical disturbances and instability (Friedman, 1960; Webster, 1956; Webster, Freeman & Heist, 1962).

Religious belief was found to be positively correlated with the Pa scale on the MMPI by Broen (1955), but negatively correlated by Martin and Nichols (1962) when using students who scored low on religious information. However, when the amount of religious information was not used as a factor in the comparison, no correlation was found by the latter investigators.

On the other hand, Broen (1956) found a positive correlation between religious beliefs and a high L score, while Martin and Nichols (1962) found no correlation on this scale in their study. No correlation was found on this scale by Bohrnstedt, Borgatta, and Evans (1968) when correlated with Conventional Religiosity. However, Brown and Lowe (1951) found a significant difference ($p < .05$) on this scale between male Bible students and male non-believers.

Religious belief was found to be negatively correlated with the Mf scale for male subjects (Brown & Lowe, 1951; Johnson, 1948). Martin and Nichols (1962) also found a negative correlation for males, but only in their high-religious-information group. In Brown and Lowe's study (1951) the "non-believers" were markedly and significantly higher on this scale than either the male believers or the students from a Bible college. Thus, it would appear that

most research supports the concept that the greater the amount of religious belief and knowledge, the lower the score on the Mf scale for males. The only study found which revealed a significant difference for females on the Mf scale was that done by Bohrnstedt et al. (1968) where it correlated negatively with Conventional Religiosity.

Male students from a Bible college were found to score significantly higher on the Hy scale of the MMPI than did male "non-believers" (Brown & Lowe, 1951). A positive correlation between this scale and Conventional Religiosity was found by Bohrnstedt et al. (1968).

In addition to the high scores among the older members of the conventional religion mentioned earlier (Brown & Lowe, 1951), the D scale was found to be elevated for male "non-believers". This score was significantly higher ($p < .05$) than that made by the "believers" in the same study, thus indicating a tendency for "non-believers" to be more pessimistic, worrisome, and introverted. The D scale was also found to be negatively correlated with Conventional Religiosity (Bohrnstedt et al., 1968).

Differences were most commonly found on the Pa, Hy, Mf, and D scales. Additionally the following were found to be positively correlated with Conventional Religiosity: Pd, Sc, ? and F (Bohrnstedt et al., 1968).

Summary

Few of the studies reviewed have dealt with the factor of measured religious participation used in this study. Most studies involving the use of both religious and psychological factors have used measures of religious belief rather than behavior as their reference point. As has been previously pointed out, beliefs and practices are not synonymous.

Expectations can, however, be surmised. Since most investigators have found the college age population to be lower in church attendance than other age groups, we can expect that this study would reveal more reports of lower than higher attendance. However, in light of the social desirability factors involved, we might find an overstatement of attendance. Males should be expected to have a lower rate of church attendance than females, and married students should indicate less participation in attendance at church functions than do single persons. No difference in intelligence or grades earned in college should be expected on the part of the students in each of the three categories of attendance.

It is to be expected that more students in this study would fall into the Stereopathy category on the Form T Inventory of Beliefs due to the fact that the sample was

drawn from a Southern university and consisted of members of a fundamentalistic type denomination. Since no literature was found using this instrument as a basis of comparing different frequencies of religious participation of college students, no light was shed on whether or not to expect a difference between the groups. The students in this study should be expected to stress orderliness and control in their behavior and be more approving of authority figures than would students in a non-stereopathic type of school.

High scores on the aesthetic scale of the Study of Values should be expected for the group as a whole, since most studies show an increase in the scores on this scale as students progress through college. Females should be expected to score higher on the religious scale than do males, while those students in the high attendance group should also be expected to receive higher scores on this scale than either of the other two groups.

Turning our attention to the MMPI scales we may expect the high attenders group to score slightly higher than the other two groups on the Pa scale. This expectation, however, comes only on the basis of research done with high "believers" and not high attenders. Again, on the basis of "belief" studies, we might expect to find an

elevated score on the L scale for high attenders, particularly males. Males also seem to show a greater difference on the Mf scale. Contrary to popular opinion, research reveals that those males who score high in religious belief and religious information are more masculine in their interests than are non-believers or those who are less well educated religiously. There is also a suggestion that females with a high degree of religious information are more feminine in their interests than are those females who are less well informed religiously.

High religiosity was found to be positively related to the Hy scale on the MMPI, indicating that the High Attenders might also score higher on this scale than would the Attenders or Low Attenders. This scale is a frequent peak for normals and reveals sociable, enthusiastic, and impatient characteristics. The high attenders might also be expected to score lower on the D scale of this instrument, revealing a more optimistic outlook than that of the other two groups.

To date, little clear research has been discovered to suggest a significant difference in any of the scales of the instruments used in this study when comparing college students in relation to their degree of participation in religious activities.

Chapter 3

Research Design

Subjects

The forty-nine subjects used in this study were drawn from the junior and senior classes at a state university in the South-eastern section of the country during the 1969-1970 academic year. The mean age of the sample was 22 with a range from ages 20 to 30. The mean age for males was 23, some two years older than that of the female mean of 21. Seventeen percent of the subjects were married. Of that 17%, 48% (10) of the males were married, while only 25% of the females indicated this status. All subjects were Caucasians.

Membership in a Baptist church was claimed by all subjects with 86% indicating that their church was affiliated with the Southern Baptist Convention. Missionary Baptists, General Baptists, and a non-affiliated Baptist church were represented by one member each, while four subjects did not indicate the type of affiliation held by his church. The mean age for joining the respective churches was just over twelve-and-a-half years with the mean for females being nearly nine months older than that of

males. The youngest age given for joining the church was seven while the oldest was twenty-two.

Methods and Techniques of Gathering Data

Date for this study was obtained through the use of a personally constructed questionnaire (Appendix B), the student's grade-point standings at the end of the second semester of the 1969-1970 academic year, and scores made on the Stern Form T-Inventory of Beliefs, the Allport-Vernon-Lindzey Study of Values and the Minnesota Multiphasic Personality Inventory. The original proposal included the use of scores made on the American College Test (ACT); however, scores were not available for all subjects on this instrument.

Questionnaires and an accompanying letter (Appendix C) explaining the reason for the questionnaire were sent to 623 seniors during the fall semester. This number constituted the entire population of seniors who at the fall registration had indicated that their church preference was Baptist. During the spring semester an additional mailing of questionnaires was made to all juniors who during that semester had indicated a religious preference for the Baptist church. This group consisted of 647 additional students, making a final population of 1270 from which to

draw a sample. The purpose of mailing the second questionnaire was to include a broader population due to the failure to receive sufficient subjects from the original population. In addition to the initial letter, other letters were sent to the population members in hopes of obtaining a larger sample and are included in Appendix C.

Testing was conducted during two separate weeks, as well as a few individual sessions held at various other times. The initial group testing sessions were held during the latter part of the first semester while the second session came at the latter part of the second semester. Instructions used during the testing sessions are found in Appendix D along with a copy of a card which the subjects were asked to complete concerning the results of the study.

With the receipt of the questionnaires, the subjects were classified according to the total number of times they had indicated they attended the religious services listed on that questionnaire. If the total number of times of attendance listed by the subject was seven or greater, he was classified as being in the High Attenders group (Group I). If the total was two through six inclusive, the classification was that of an Attender (Group II). Those indicating attendance at one or no functions per month were then placed in the Low Attenders category (Group III).

Grade point standings, along with those ACT scores which were available, were obtained from the Registrar's office of the university. All test materials were hand scored with the exception of the MMPI which was computer scored.

Methods of Treatment of Data

Since each of the previously described categories contained both male and female subjects, a series of t tests between the sexes were run on the various scales of the battery in order to determine the need to control for the sex variable as originally planned. There were found to be sufficient numbers of significant differences on the various scales to warrant the use of sex as one of the independent variables of the study. Due to the small percentage of married subjects in the study, marital status was dropped as an independent variable in the formal analysis.

A three by two factorial design of analysis of variance was used in the data analysis. The AVAR 2-3 program for unequal N's was run on a Honeywell 1200 computer for each of the 22 separate scales of the battery. Findings were accepted as significant at $p < .05$.

Chapter 4

Results

Presentation of Findings

Questionnaire

One hundred and forty-four of the 1270 questionnaires were returned; 61 from males and 83 from females. Forty-nine or 34% of the subjects returning the questionnaire were included in the final sample. The remaining 66% did not participate in the second phase of the study, i.e. the completion of the testing sessions. Of the original population of 1270 only 3.8% responded to the full study.

There was no significant difference between ages of the sexes in the sample, although the males were, on the average, two years older than the females. This finding was true when the sexes were broken down by groups as well, with the exception of the Attenders in which males were only one year older than females.

Attendance at church functions as listed on the questionnaire ranged from zero to thirty times per month. Table 5 gives the means and SD for attendance at church functions.

Table 5
Mean and Standard Deviation for
Attendance at Church Functions
by Groups and Sex

| Group | N | Mean | SD |
|----------------|----|-------|------|
| High Attenders | | | |
| Male | 9 | 14.44 | 5.10 |
| Female | 15 | 15.60 | 7.39 |
| Total | 24 | 15.17 | 6.53 |
| Attenders | | | |
| Male | 5 | 2.60 | 2.19 |
| Female | 7 | 3.57 | .98 |
| Total | 12 | 3.58 | 1.31 |
| Low Attenders | | | |
| Male | 7 | .14 | .38 |
| Female | 6 | .50 | .55 |
| Total | 13 | .31 | .48 |
| Entire Sample | | | |
| Male | 21 | 7.10 | 7.44 |
| Female | 28 | 9.71 | 8.58 |
| Total | 49 | 8.39 | 8.20 |

Although the number of married students in the sample was small, it was noted that there was a greater percentage in the High Attenders group (42%) than in either of the other two groups. Only 17% of the Attenders and 38% of the Low Attenders were married.

In response to a question concerning where the church functions were attended by each of the subjects, 59% (26) were found to be attending these services exclusively in their home town (the university town was also the home town of many subjects) while 41% (18 subjects) were from another city but attended religious functions in the university community. Of those 18 subjects, four attended both at home and in the university community.

The mean age for joining the church, broken down by groups and sex, is given in Table 6. Note that two-thirds ($M \pm 1 \text{ SD}$) of the cases in the Low Attenders category fall in a range from 9.11 to 17.55 years of age; a range for which both extremes are older than the corresponding percentage for each of the other two categories. A greater percentage (29%) of the Low Attenders also joined the church at age 15 or older than either of the remaining groups (17%) each.

The questionnaire yielded one additional source of information of interest which is found in Appendix E. This information consists of unsolicited comments made by various subjects on their returned questionnaires.

Table 6
Age for Joining Church
by Groups and Sex

| Group | Mean | SD | Range |
|----------------|-------|------|-------|
| High Attenders | | | |
| Male | 12.50 | 2.95 | 9 |
| Female | 12.00 | 3.85 | 4 |
| Total | 12.25 | 3.28 | 10 |
| Attenders | | | |
| Male | 10.40 | 4.93 | 12 |
| Female | 12.71 | 4.42 | 13 |
| Total | 11.75 | 4.58 | 15 |
| Low Attenders | | | |
| Male | 13.11 | 4.48 | 13 |
| Female | 13.47 | 4.21 | 12 |
| Total | 13.33 | 4.22 | 14 |
| Entire Sample | | | |
| Male | 12.25 | 4.14 | 12 |
| Female | 12.96 | 4.08 | 14 |
| Total | 12.67 | 4.08 | 15 |

Grade-Point Standings

As shown in Table 8, no significant differences were found between the three groups on the grade-point standing variable. However, a highly significant difference was noted between the sexes on this variable. Females were higher than males. When t tests were run between the sexes for each group, Group I or the High Attenders showed a difference which was significant at the $p < .02$ level, while the Low Attenders or Group III yielded significant differences at the $p < .05$ level. The difference was not significant for the Attenders group. See Table 7 for means and t values. Note also that, as a group, female Attenders had the highest standings.

Personality Assessment Instruments

Means and standard deviations for the scales on each of the personality assessment instruments used are found in Tables 8, 16, and 19. Figures 1-5 report the means in graphic representation, showing the relationship between the groups by sex on the various scales of the different instruments. Results of the analysis of variance tests for significance are found in Tables 9-15, 17-18, and 20-32.

Significant differences on the SV were found between the groups on the theoretical, economic, and religious scales. Differences were significant between the sexes on

Table 7
Results of t tests for Differences
Between the Sexes on Grade-Point
Standings by Groups

| Group | Male | | Female | | | |
|-------------------|----------|-----------|----------|-----------|-----------|----------------|
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>df</u> | <u>t</u> value |
| High Attenders | 2.452 | .311 | 2.937 | .513 | 22 | 2.562** |
| Attenders | 2.447 | .566 | 3.129 | .603 | 10 | 1.978 |
| Low Attenders | 2.444 | .320 | 2.985 | .532 | 11 | 2.263* |

Note.-Standings based on a 4 point grading scale.

**p < .02

*p < .05

Table 8
Summary of Analysis of Variance of
Grade Point Standings

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 7347.83 | 5 | |
| A | 349.73 | 2 | .15 |
| B | 35289.46 | 1 | 15.25* |
| AB | 375.12 | 2 | .16 |
| Within | 2314.04 | 43 | |
| Total | 2838.39 | 48 | |

Note.- A is the treatment of the groups, B is sex, and AB refers to the interaction of the groups with the sex variable for this table and all subsequent summaries of Analysis of Variance.

* $p < .001$

the theoretical, political, and religious scales, while the theoretical scale alone showed a significant difference in the interaction of the groups and sexes. Further comparisons reveal that the difference here probably is due to males in the High Attendance group scoring lower on this scale than did males in the Low Attenders group. See Figure 1.

No significant differences were found to exist either between groups or sexes on the Form T Inventory of Beliefs. However, inspection of Figure 3 shows that scores for male High Attenders were lower on both scales of this instrument than either of the other two groups of males. Female High Attenders, however, show an opposite profile with their scores on both scales being higher than either of the other two groups.

Scores on the MMPI revealed significant differences between the sexes on the Mf and Si scales. No differences were found on any scale between the groups. However, there was an interaction between the groups and sexes which reached significance on the Pa scale.

Figure 1
Male Mean Profile for Study of Values

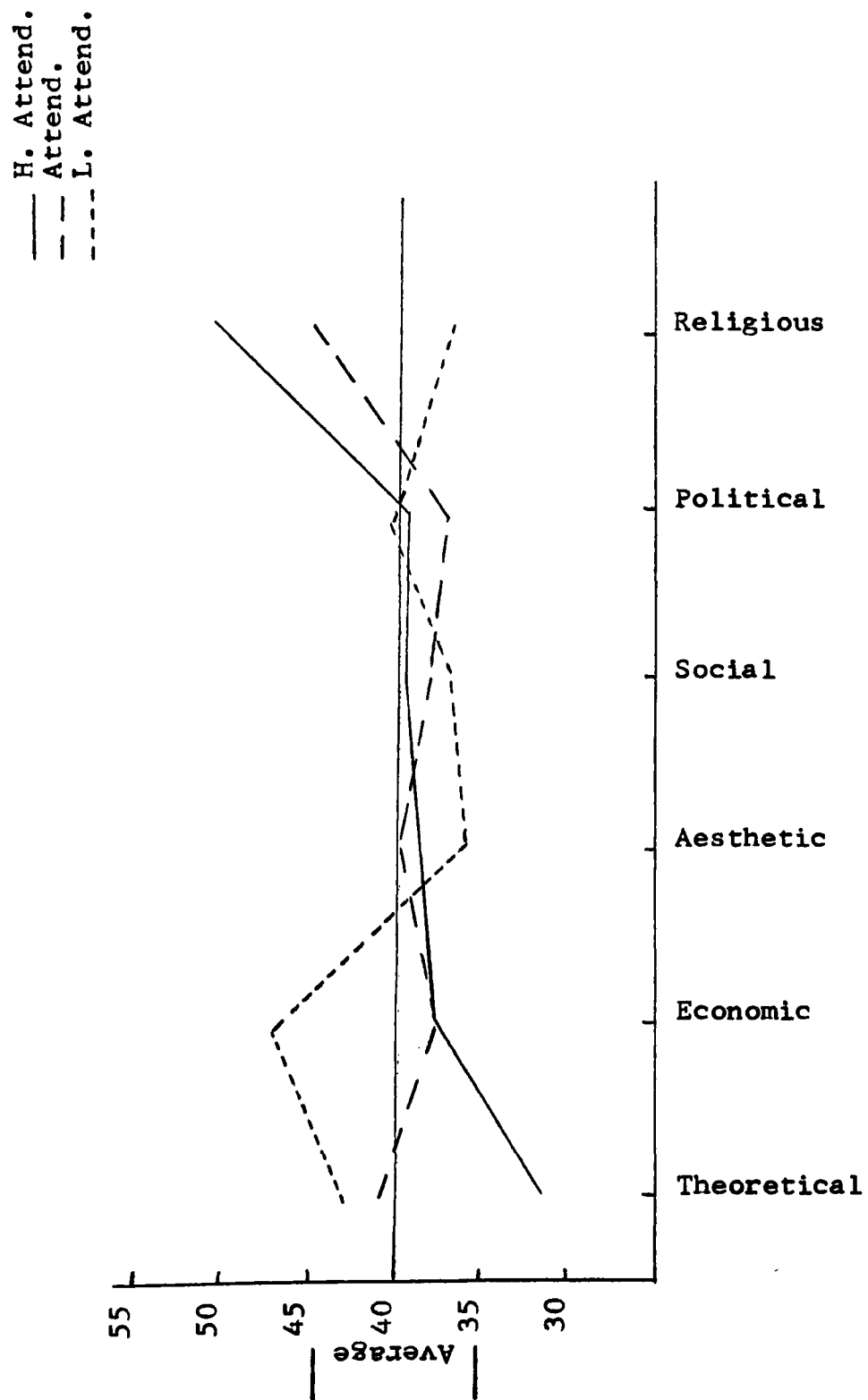


Figure 2
Female Mean Profile for Study of Values

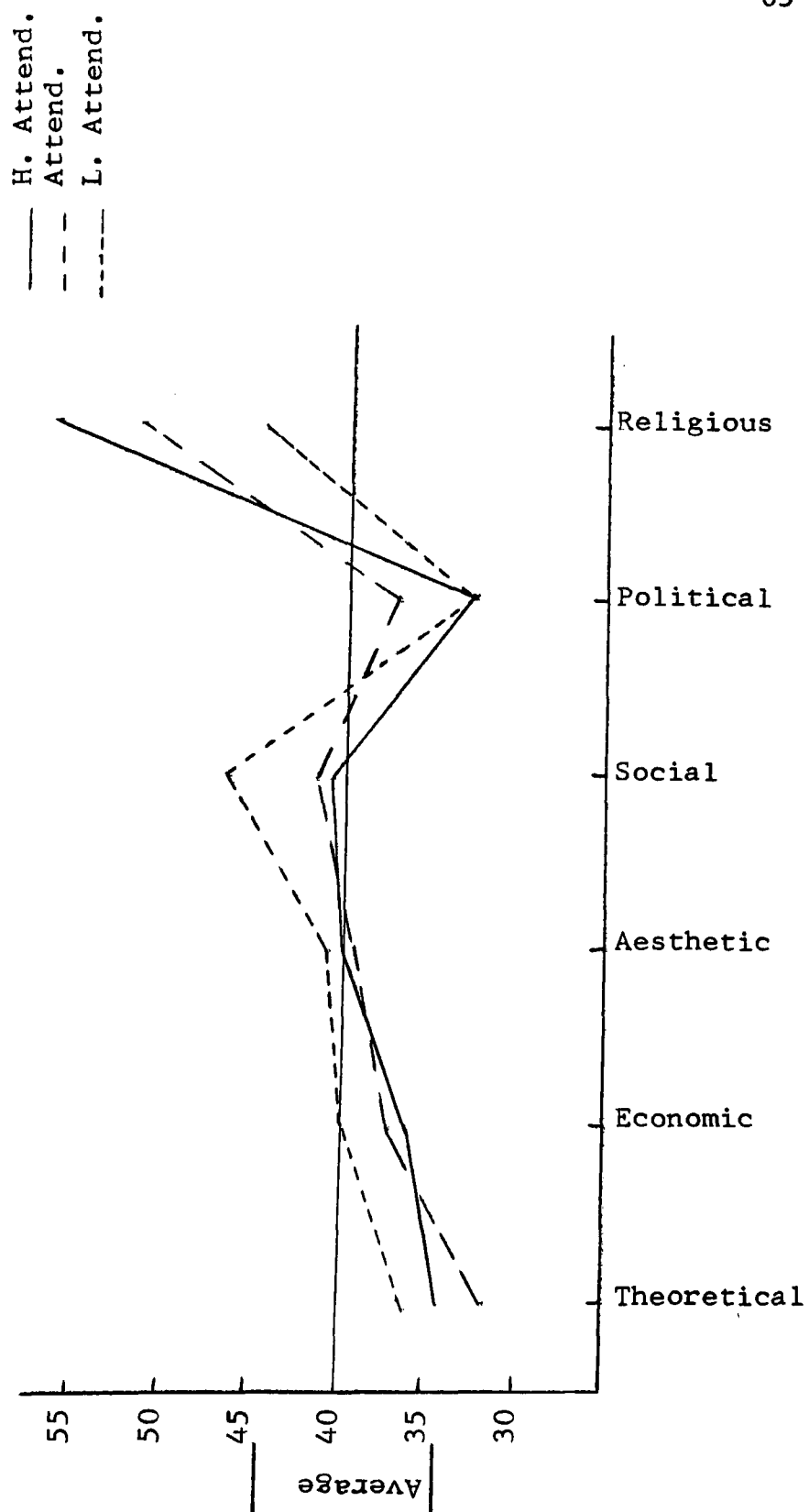


Table 9
Mean and Standard Deviation for
Groups by Sex on
Study of Values

| Scale | High Attenders | | | | Attenders | | | | Low Attenders | | | |
|-------------|----------------|-------|--------|------|-----------|-------|--------|-------|---------------|-------|--------|-------|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| | | | | | | | | | | | | |
| Theoretical | 32.22 | 8.41 | 34.13 | 6.37 | 41.40 | 4.10 | 32.14 | 5.15 | 43.00 | 5.23 | 35.50 | 5.28 |
| Economic | 38.00 | 8.26 | 36.33 | 3.56 | 38.20 | 7.19 | 37.43 | 5.50 | 46.71 | 5.88 | 39.67 | 12.36 |
| Aesthetic | 38.78 | 11.22 | 39.60 | 6.43 | 40.40 | 10.21 | 39.00 | 10.88 | 36.29 | 12.31 | 40.83 | 6.80 |
| Social | 40.33 | 9.45 | 40.73 | 6.34 | 38.40 | 6.62 | 42.14 | 11.16 | 37.29 | 7.80 | 46.50 | 5.13 |
| Political | 39.56 | 7.27 | 33.07 | 5.65 | 37.40 | 7.80 | 37.00 | 6.38 | 40.14 | 8.82 | 33.33 | 5.20 |
| Religious | 51.11 | 4.26 | 56.13 | 4.42 | 44.20 | 12.30 | 52.29 | 6.21 | 36.71 | 10.24 | 44.17 | 7.41 |

Table 10
 Summary of Analysis of Variance of the
 Theoretical Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 159.13 | 5 | |
| A | 134.74 | 2 | 3.48* |
| B | 265.50 | 1 | 6.87* |
| AB | 130.33 | 2 | 3.37* |
| Within | 38.67 | 43 | |
| Total | 51.22 | 48 | |

* $p < .05$

Table 11
 Summary of Analysis of Variance of the
 Economic Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 101.56 | 5 | |
| A | 158.06 | 2 | 3.26* |
| B | 108.39 | 1 | 2.24 |
| AB | 41.65 | 2 | .86 |
| Within | 48.43 | 43 | |
| Total | 53.97 | 48 | |

* $p < .05$

Table 12
 Summary of Analysis of Variance of the
 Aesthetic Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 18.74 | 5 | |
| A | 4.72 | 2 | .05 |
| B | 18.98 | 1 | .21 |
| AB | 32.64 | 2 | .36 |
| Within | 89.64 | 43 | |
| Total | 82.28 | 48 | |

Table 13
Summary of Analysis of Variance of the
Social Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 75.98 | 5 | |
| A | 10.95 | 2 | .17 |
| B | 214.92 | 1 | 3.43 |
| AB | 71.55 | 2 | 1.14 |
| Within | 62.70 | 43 | |
| Total | 64.08 | 48 | |

Table 14
 Summary of Analysis of Variance of the
 Political Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 65.20 | 5 | |
| A | 2.86 | 2 | .06 |
| B | 226.04 | 1 | 4.96* |
| AB | 47.14 | 2 | 1.03 |
| Within | 45.55 | 43 | |
| Total | 47.60 | 48 | |

* $p < .05$

Table 15
 Summary of Analysis of Variance of the
 Religious Scale of the
Study of Values

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 359.62 | 5 | |
| A | 634.99 | 2 | 12.65** |
| B | 509.21 | 1 | 10.14* |
| AB | 9.45 | 2 | .19 |
| Within | 50.21 | 43 | |
| Total | 82.44 | 48 | |

** $p < .0001$

* $p < .01$

Figure 3
Mean Profiles on Form T Inventory of Beliefs

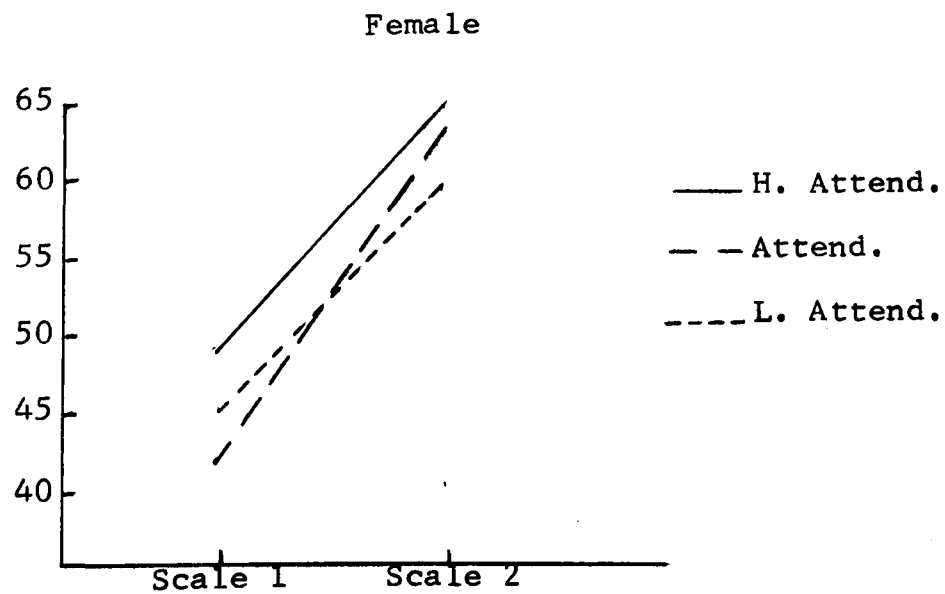
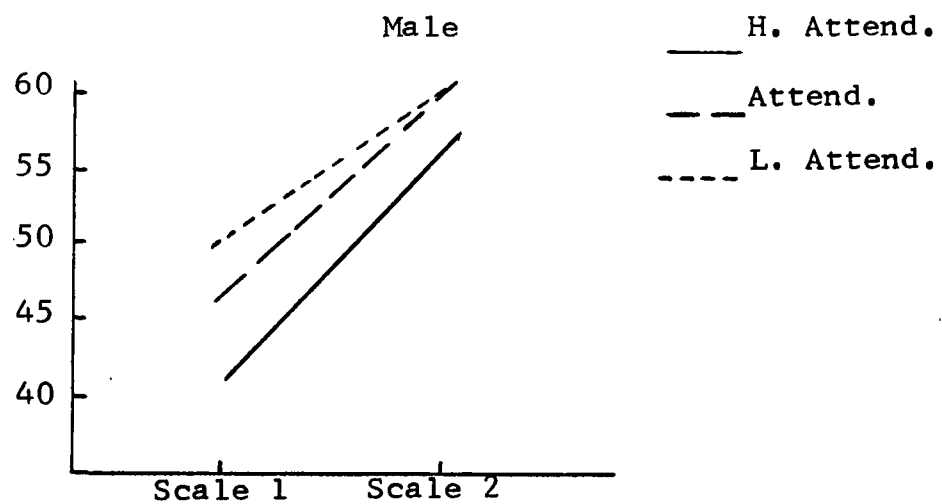


Table 16
Mean and Standard Deviation for
Groups by Sex on
Form-T Inventory of Beliefs

| Scale 1 | | | | Scale 2 | | | |
|----------------|------|--------|------|---------|-------|--------|-------|
| Male | | Female | | Male | | Female | |
| Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| High Attenders | | | | | | | |
| 42.22 | 9.18 | 49.20 | 9.89 | 56.89 | 6.85 | 64.60 | 9.16 |
| Attenders | | | | | | | |
| 45.80 | 8.11 | 42.29 | 7.41 | 60.40 | 8.38 | 63.14 | 7.36 |
| Low Attenders | | | | | | | |
| 49.71 | 9.74 | 45.33 | 9.77 | 60.29 | 11.50 | 58.57 | 10.71 |

Table 17
 Summary of Analysis of Variance of the
Form-T Inventory of Beliefs
 Scale 1

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 75.51 | 5 | |
| A | 43.81 | 2 | .51 |
| B | 1.01 | 1 | .01 |
| AB | 144.46 | 2 | 1.69 |
| Within | 85.60 | 43 | |
| Total | 84.55 | 48 | |

Table 18
Summary of Analysis of Variance of the
Form-T Inventory of Beliefs
Scale 2

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 57.95 | 5 | |
| A | 19.11 | 2 | .23 |
| B | 94.02 | 1 | 1.15 |
| AB | 78.76 | 2 | .96 |
| Within | 81.94 | 43 | |
| Total | 79.44 | 48 | |

Figure 4
Male Mean Profile on MMPI by Groups

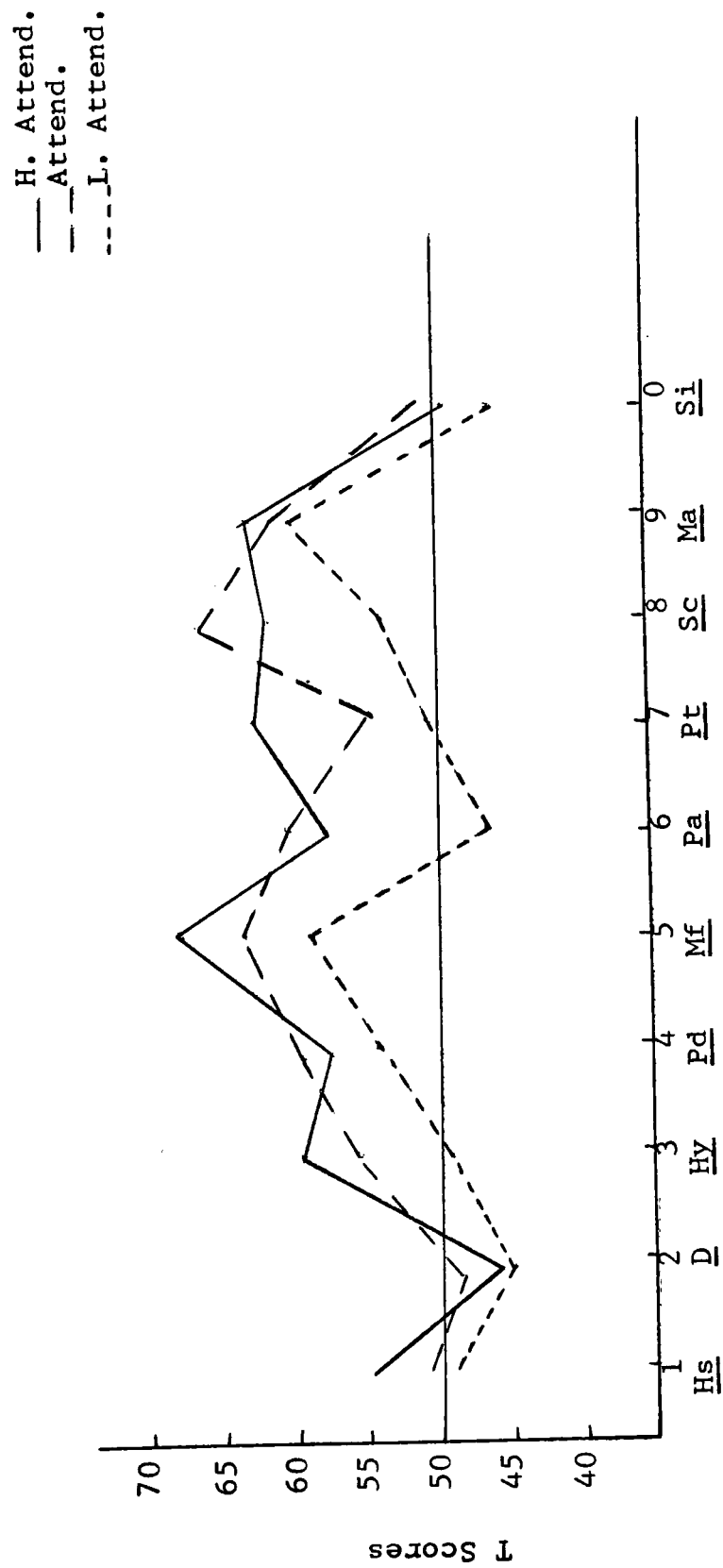


Figure 5

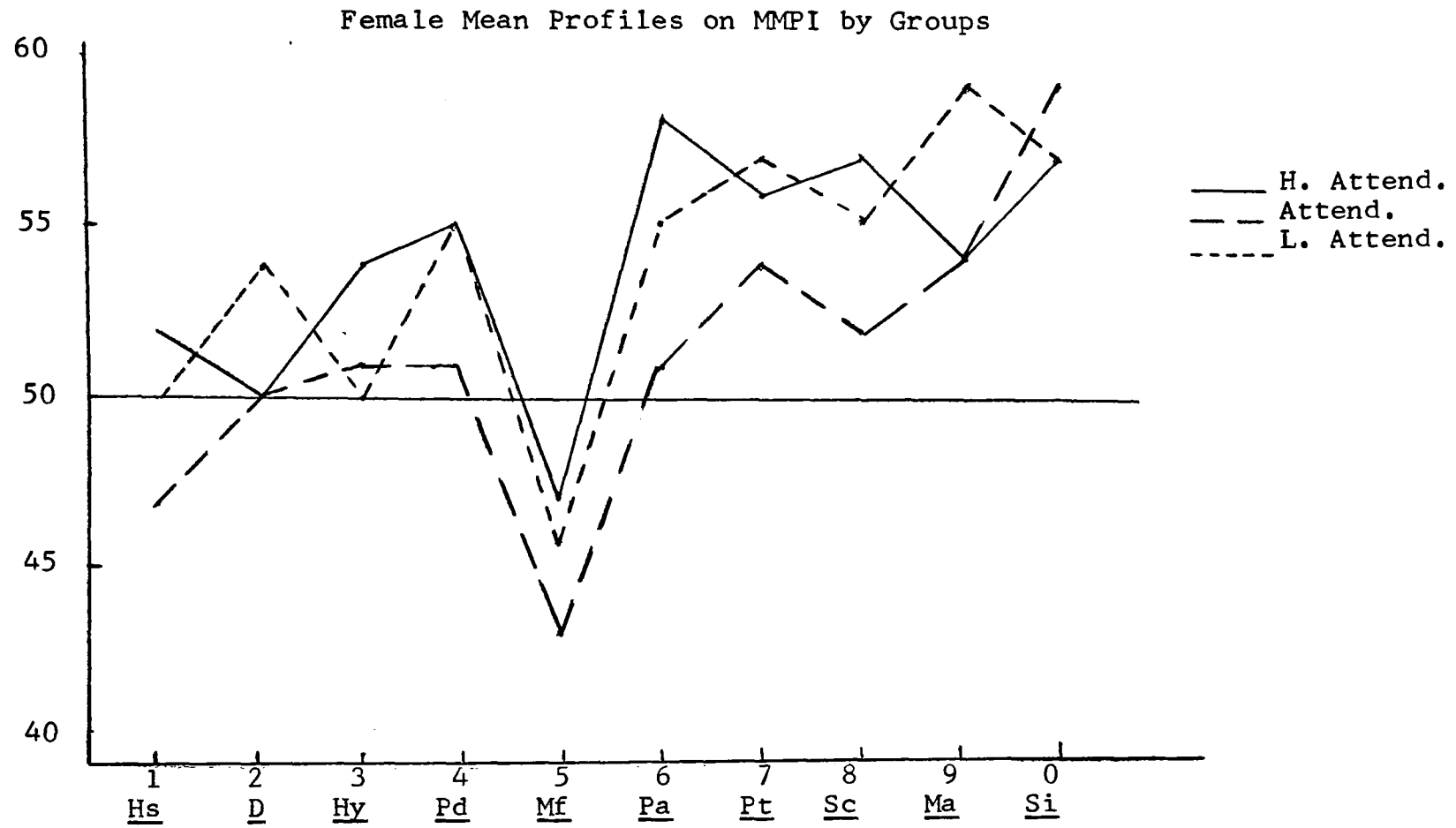


Table 19
T Score Means and Standard Deviations for
Groups by Sex on MMPI

| Scale | High Attenders | | | | Attenders | | | | Low Attenders | | | |
|-----------|----------------|-----------|----------|-----------|-----------|-----------|----------|-----------|---------------|-----------|----------|-----------|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| <u>L</u> | 47.11 | 6.72 | 50.13 | 7.38 | 49.40 | 7.80 | 44.43 | 4.39 | 42.14 | 6.07 | 46.50 | 5.50 |
| <u>F</u> | 51.44 | 5.94 | 53.87 | 8.65 | 54.40 | 7.89 | 53.00 | 6.14 | 50.86 | 6.41 | 51.17 | 3.19 |
| <u>K</u> | 55.33 | 10.99 | 56.27 | 11.76 | 57.40 | 7.23 | 51.71 | 11.15 | 55.71 | 8.40 | 57.33 | 9.03 |
| <u>Hs</u> | 54.67 | 12.99 | 51.53 | 7.34 | 51.20 | 5.89 | 47.00 | 4.58 | 48.71 | 8.20 | 50.00 | 2.83 |
| <u>D</u> | 45.67 | 19.84 | 49.73 | 5.60 | 49.40 | 8.88 | 50.14 | 6.64 | 45.29 | 4.99 | 54.33 | 4.84 |
| <u>Hy</u> | 59.78 | 8.76 | 54.53 | 8.05 | 55.80 | 6.38 | 51.00 | 5.35 | 48.85 | 10.11 | 50.17 | 10.50 |
| <u>Pd</u> | 56.89 | 6.94 | 54.73 | 7.89 | 60.00 | 8.80 | 50.86 | 15.09 | 54.00 | 12.97 | 54.67 | 11.88 |
| <u>Mf</u> | 68.44 | 12.29 | 47.13 | 10.51 | 64.20 | 6.26 | 43.00 | 11.65 | 58.29 | 15.71 | 43.50 | 7.69 |
| <u>Pa</u> | 57.22 | 7.89 | 57.87 | 9.41 | 61.20 | 14.02 | 51.14 | 10.64 | 47.00 | 4.24 | 54.83 | 10.32 |
| <u>Pt</u> | 61.67 | 13.81 | 56.07 | 7.82 | 54.80 | 8.07 | 54.43 | 5.65 | 51.14 | 11.31 | 56.67 | 6.15 |
| <u>Sc</u> | 61.00 | 11.42 | 56.67 | 8.30 | 66.80 | 18.93 | 52.43 | 14.08 | 54.43 | 11.80 | 55.33 | 3.72 |
| <u>Ma</u> | 62.78 | 14.98 | 54.40 | 10.34 | 60.80 | 17.53 | 54.14 | 10.93 | 59.86 | 8.43 | 58.67 | 16.57 |
| <u>Si</u> | 50.11 | 6.75 | 56.93 | 10.45 | 51.60 | 11.17 | 59.14 | 11.65 | 46.86 | 8.11 | 57.17 | 12.25 |

Table 20
Summary of Analysis of Variance
of the L Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 65.30 | 5 | |
| A | 67.79 | 2 | 1.57 |
| B | 6.98 | 1 | .16 |
| AB | 91.97 | 2 | 2.13 |
| Within | 43.11 | 43 | |
| Total | 45.42 | 48 | |

Table 21
Summary of Analysis of Variance
of the F Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 16.34 | 5 | |
| A | 26.54 | 2 | .54 |
| B | 2.14 | 1 | .04 |
| AB | 13.25 | 2 | .27 |
| Within | 48.90 | 43 | |
| Total | 45.51 | 48 | |

Table 22
 Summary of Analysis of Variance
 of the K Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 31.61 | 5 | |
| A | 14.30 | 2 | .13 |
| B | 11.83 | 1 | .11 |
| AB | 58.81 | 2 | .54 |
| Within | 108.98 | 43 | |
| Total | 100.92 | 48 | |

Table 23
Summary of Analysis of Variance
of the Hs Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 50.02 | 5 | |
| A | 72.46 | 2 | 1.11 |
| B | 44.06 | 1 | .67 |
| AB | 30.57 | 2 | .47 |
| Within | 65.39 | 43 | |
| Total | 63.79 | 48 | |

Table 24
 Summary of Analysis of Variance
 of the D Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 79.94 | 5 | |
| A | 21.06 | 2 | .20 |
| B | 231.31 | 1 | 2.24 |
| AB | 63.14 | 2 | .61 |
| Within | 103.11 | 43 | |
| Total | 100.70 | 48 | |

Table 25
 Summary of Analysis of Variance
 of the Hy Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 122.23 | 5 | |
| A | 211.16 | 2 | 3.01 |
| B | 91.91 | 1 | 1.31 |
| AB | 48.47 | 2 | .69 |
| Within | 70.23 | 43 | |
| Total | 75.64 | 48 | |

Table 26
Summary of Analysis of Variance
of the Pd Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 67.50 | 5 | |
| A | 8.50 | 2 | .08 |
| B | 136.16 | 1 | 1.26 |
| AB | 92.16 | 2 | .85 |
| Within | 108.09 | 43 | |
| Total | 103.86 | 48 | |

Table 27
Summary of Analysis of Variance
of the Mf Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 880.88 | 5 | |
| A | 174.50 | 2 | 1.36 |
| B | 3954.58 | 1 | 30.91* |
| AB | 50.43 | 2 | .39 |
| Within | 127.95 | 43 | |
| Total | 206.38 | 48 | |

* $p < .0000$

Table 28
Summary of Analysis of Variance
of the Pa Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 188.51 | 5 | |
| A | 176.89 | 2 | 1.98 |
| B | 3.00 | 1 | .03 |
| AB | 292.88 | 2 | 3.28* |
| Within | 89.39 | 43 | |
| Total | 99.72 | 48 | |

* $p < .05$

Table 29
Summary of Analysis of Variance
of the Pt Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 86.46 | 5 | |
| A | 104.09 | 2 | 1.18 |
| B | .24 | 1 | .00 |
| AB | 111.92 | 2 | 1.27 |
| Within | 88.18 | 43 | |
| Total | 88.00 | 48 | |

Table 30
 Summary of Analysis of Variance
 of the Sc Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 200.67 | 5 | |
| A | 93.08 | 2 | .72 |
| B | 381.66 | 1 | 2.96 |
| AB | 217.77 | 2 | 1.69 |
| Within | 128.72 | 43 | |
| Total | 136.21 | 48 | |

Table 31
 Summary of Analysis of Variance
 of the Ma Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 88.51 | 5 | |
| A | 11.82 | 2 | .07 |
| B | 317.12 | 1 | 1.94 |
| AB | 50.90 | 2 | .31 |
| Within | 136.70 | 43 | |
| Total | 155.87 | 48 | |

Table 32
Summary of Analysis of Variance
of the Si Scale of the MMPI

| Source | <u>MS</u> | <u>df</u> | <u>F</u> |
|---------|-----------|-----------|----------|
| Between | 167.95 | 5 | |
| A | 40.92 | 2 | .40 |
| B | 733.40 | 1 | 7.24* |
| AB | 12.25 | 2 | .12 |
| Within | 101.25 | 43 | |
| Total | 108.19 | 48 | |

*p < .01

Interpretation of Findings

As can be seen from the number of students in each of the three groups studied (Table 5), there was a greater response from those who fall into the High Attenders category, both male and female, than the remaining two groups. Female students responded to the study in greater numbers and attended religious services an average of two-and-a-half times per month more than male students. Those facts suggest the possibility that females and those who attend church functions frequently may be more conforming in their behavior and have a greater need for accepting authoritarian decisions than do students who attend less frequently. The present study did not bear out these assumptions. It should be noted that the Form T Inventory of Beliefs, an instrument designed to identify individuals with a strong need for authority, showed no differences between the groups or sexes. The MMPI revealed no group differences on any of the scales which would indicate this need. As seen in the descriptions given in Tables 33 and 34, conforming to social codes and mores was common to all groups for both male and female subjects.

Results of this study support the null hypothesis that there is no significant difference, when measured by grade-point standings, between groups of college students

Table 33
Male MMPI Descriptions by Groups

| High Attenders | Attenders | Low Attenders |
|--|--|--|
| Common to All Groups | | |
| Conforms reasonably to social codes and mores. Probably energetic and enthusiastic. Varied interests. Has capacity to maintain adequate social relationships. Views himself as well-adjusted and self-reliant. | | |
| Areas of Differences | | |
| Emphasizes but fails to show real concern about somatic symptoms, depression or anxiety conspicuously absent, self-centered and demanding; dependent. | Few somatic complaints. Little concern about bodily health. Views life with average mixture of optimism and pessimism. | Few somatic complaints. Little concern about bodily health. Cheerful and optimistic. Tough minded. |
| Probably sensitive and idealistic with high esthetic, cultural and artistic interests. | Inclines toward esthetic interests. | Inclines toward esthetic interests. |

(Table continued on next page)

Table 33 (Continued)

| | | |
|--|--|--|
| Respects opinions of others without undue sensitivity. | Sensitive. Alive to the opinions of others. | Respects opinions of others without undue sensitivity. |
| Conscientious, orderly and self-critical. | Probably not a worrier. Tends to be relaxed regarding responsibilities. | Has sufficient capacity for organizing work and personal life. |
| Tends toward abstract interests such as philosophy and religion. | Tends toward abstract interests such as science, philosophy, and religion. | Has a combination of practical and theoretical interests. |

Note.-Descriptions from Pearson, J.S. & Swenson, W.M., A Users Guide to the Mayo Clinic Automated MMPI Program, pages 32-34.

Table 34
Female MMPI Descriptions by Groups

| High Attenders | Attenders | Low Attenders |
|--|---|--|
| Common to All Groups | | |
| Views life with average mixture of optimism and pessimism. Conforms reasonably to social codes and mores. Normal female interest pattern for work, hobbies, ect. Sensitive, alive to opinions of others. Has sufficient capacity for organizing work and personal life. Combination of practical and theoretical interests. Probably reserved in unfamiliar social situations. | | |
| Areas of Differences | | |
| Number of physical symptoms and concerns about bodily functions. | Few somatic complaints. Little concern about bodily health. Tough minded. | Number of physical symptoms and concerns about bodily functions. |

(Table continued on next page)

Table 34 (Continued)

| | | |
|--|----------------------------------|--|
| Normal energy and activity level | Normal energy and activity level | Probably energetic and enthusiastic. Varied interests. |
| Views herself as well-adjusted and self-reliant. | | Views herself as well-adjusted and self-reliant. |

Note.-Descriptions from Pearson, J.S. and Swenson, W.M., A Users Guide to the Mayo Clinic Automated MMPI Program, pages 32-34.

within the Baptist denomination with respect to the number of times that they attend church functions. Since sufficient numbers of scores were not available for comparison on the American College Test, that comparison was unable to be made in this study. It appears then, that differences in grade-point standings is clearly a reflection of sex rather than any difference in church attendance.

The study also confirmed the remaining null hypothesis that there are no significant differences between the three groups studied with respect to the personality variables measured on the personality assessment instruments used, with the following three exceptions: the theoretical, economics and religious scales of the SV.

The difference between the three groups on the theoretical scale may be seen as a reflection of the differences between the sexes, since the sex variable interacted significantly with the group variable. Males scored higher than did females on this scale. Group mean scores on this scale varied inversely with the amount of church attendance. The difference on the economic scale is accounted for by the high mean score of 43.19 for Low Attenders and scores of 37.81 and 37.17 respectively for the Attenders and High Attenders.

The highly significant difference (Table 15) between the groups on the religious scale is due to the expected higher scores by the High Attenders on this scale (53.62). Scores on this scale are in direct correspondence with the number of times of church attendance; Low Attenders showing the least amount of value placed on this variable when compared to the remaining groups in the study.

It should be noted here that the scores on this particular instrument are ipsative in nature, i.e. a low score on one scale necessitates an elevated score or scores on the remaining scales since choices are being made not only in favor of one area, but also at the same time rejecting another area. Thus, the high mean score by the High Attenders on the religious scale probably was obtained at the expense of the theoretical and economic scales.

Interestingly, more differences between the sexes were found to exist in this study than differences between groups. In addition to the sex differences on grade-point standings and the theoretical scale of the SV previously discussed, sex differences were found to exist on the political and religious scales of the SV and the Mf and Si scales of the MMPI. Males scored higher on the political scale and lower on the religious scale of the SV, thus indicating more interest in political concerns and less

interest in religious concerns than females in the study.

Closer inspection of the Mf and Si scales of the MMPI are necessary in order to interpret these findings. As has been shown previously (Chapter 2), a high T score on the Mf scale for males indicates interests which tend toward those normally attributed to females, while a high T score for females indicates more masculine type interests. The male mean T score on this scale was 63.64 while the female mean T score was 44.54. Thus, not only was there a significant difference on this scale, as would be expected if the scale measures what it is purported to measure, but it was shown that males in this sample scored nearly one and one-half standard deviations above the mean, indicating a strong tendency toward feminine-type interests. Females were slightly more feminine in interests than the expected mean.

The Si scale measures social extroversion-introversion. Here we find the male mean T score to be 49.52 while the female mean is 57.75. Although females scored significantly higher, both scores fall well within plus or minus one standard deviation of the mean. Using the descriptions compiled by Pearson and Swenson (1967), females as a group in this study would be described as

"probably reserved in unfamiliar social situations [p.33]," and males would be described as having "capacity to maintain adequate social relationships [p.33]."

Summary

No significant differences were found between groups of college juniors and seniors who attended church with the degrees of frequency outlined in this study on their grade-point standings, their scores on the Form T Inventory of Belief, or their scores on the MMPI. The only areas of significant difference lay in the ipsative scales of the SV. The scales of significant differences were the theoretical, economic and religious scales.

Chapter 5

Summary and Conclusions

Discussion of Results

With only a slight exception in respect to the SV instrument, the original hypotheses of this investigation have been demonstrated to be true. As was pointed out in the previous chapter, the differences found between the groups on the SV are very likely to be the result of the ipsative nature of the scores themselves. The only real area of significant differences between the groups probably was on the religious scale alone. Previous research was shown in Chapter 2 which indicated that this result was to be expected. Therefore, in regard to the original question of whether or not certain personality or achievement factors were a significant influence contributing to the rate of church attendance by college juniors and seniors, it must be said that this study did not show such an effect.

The study did, however, point to certain interesting areas of consideration when asked why certain students continue to attend church during the latter part of their college years and others do not. The sex variable was

found to play a significant part on many of the scales, suggesting that perhaps sex was more of a determining factor affecting church attendance than were the personality and achievement factors studied. Since previous research indicated that males would be expected to attend church functions less frequently than females, this point appears to have been upheld.

Some information gleaned from this study was not a part of the formal hypotheses, but nonetheless provided areas where implications may be drawn. The fact that females responded more frequently than males suggests that females may cooperate in many areas more willingly than males. Higher grade-point averages by females may also be influenced by such an attitude. It may be that males are not any less interested in the church as such than females, but that they in general are less compliant to requests and demands placed upon them. In keeping with the same thought of compliance, it would also appear that since those students classified as High Attenders responded in greater numbers to the study than others that they too may be more conforming and thus attend church more on the basis of a need to conform than because of the spiritual value received. Further investigation is needed to either prove or disprove this possibility.

Another area of interest disclosed by the study was that of the age at which each group joined the Church. As seen in Table 6, those students in the Low Attenders group joined the Church at a later age than did either of the remaining groups. Although not proven to be true, the implication exists that those who joined the Church at an earlier age (note that the youngest mean age for joining was nearly ten-and-a-half) continued to attend church functions in their college years. The probability is that these students were also reared in homes where the entire family was involved in church activities or at least some significant person in the life of the child guided him to an interest in the Church. A possible reason for the lack of attendance in the college years by those joining at a later age would be that they lacked the "significant other" influence to keep their interest active after the initial enthusiasm was gone.

Over half (59%) of the responding students indicated that the religious functions which they attended were done so exclusively in their home towns. This fact further supports the concept presented previously that the home influence still may be a significant factor affecting the church attendance of some college students.

Although some of the variables under study did not reach the required level of significance, they may be helpful to the student of religious behavior. Previous research had suggested that on the Form T Inventory of Beliefs the students from a Southern college or university would be expected to score low on Scale 1 and thus fall into the Stereopathy category. This was not the case for this study. Both Groups I and III fell in the Unclassified category, while Group II, the Attenders, fell in the Rational-Stereopathy category. No interpretations are given by Stern for these scores which fall in the Unclassified category while it is assumed that a combination category such as the Rational-Stereopathy would combine the characteristics reported for both R's and S's (See pages 33-35).

Past research had also indicated a tendency for the following results which did not receive confirmation in this study; high scores by the sample on the aesthetic scale of the SV, more reports of low church attendance than high attendance among the students, higher church attendance by single students than by married students, female High Attenders scoring more feminine than females in other groups on the Mf scale of the MMPI, and male High Attenders scoring more masculine than other males on the

Mf scale of the MMPI. Some evidence was present in the study for other expectations derived from previous research but they were not significant: higher scores on the L, Pa, and Hy scales of the MMPI by High Attenders, and lower scores for this same group on the D scale of the MMPI.

In general, this study presented no positive proof concerning why students do or do not attend church functions in college. However, it does provide directions for further study of the problem.

Recommendations for Further Study

As a pilot study, this research suggested several further types of studies which might be valuable in the study of religious behavior and its causes. The initial recommendation to be made is for further scientific studies dealing with the actual measured behavior of persons both within and outside of the organized institutional church in an effort to determine what differences, if any, exist between the two groups.

It would be an erroneous assumption from the present study to conclude that personality variables do not in any way affect the rate at which a student attends church functions. A very definite interaction between sex and groups was found to exist on some scales suggesting that

perhaps a closer look is needed at the individual groups, considering only one sex at a time. For example, inspection of Table 28 reveals a significant interaction between groups and sex on the Pa scale of the MMPI. Figure 4 as well as Table 19 shows a difference of 6 points for males on this scale between Groups II and III which might indicate a significant difference. The present study could be so modified to test for such differences between the groups, holding sex constant. It may very well be that significant differences do exist for the variables studied, but within a particular sex.

Such an investigation could result in determining what type of male or female student is actively involved in religious functions during college. This information could perhaps offer a clue to what aspects within the present church program are effectively reaching certain types of individuals. Determining the personality types of each sex who do not attend might offer insight into their needs and result in a concerted effort by the Church to help fulfill those needs through modifications of its existing programs.

Considering the great difficulty encountered during this study in getting volunteers for the investigation, it is recommended that any attempts to

duplicate the study employ the use of incentives, such as cash payments, for participation. In this manner it would be possible to obtain the desired number of 100 or more subjects.

Additional measures of achievement, other than grade-point standings, would yield further information concerning the influence of achievement factors on religious participation. These might also be incorporated in a modification of the present study.

Inspection of Figure 3 presents another possibility for study of differences which were not within the intent of this study to pursue. Note that male subjects in Group I had the lowest scores on both scales of the Form T Inventory of Beliefs while the reverse was true for females in this same group. Perhaps there would be significant differences within the groups themselves if they were considered separately and differences between the sexes within that group were investigated for each of the personality and academic variables.

Thus, the basic framework of the present study could serve as the foundation for other studies which would shed more light on the variables that influence religious behavior.

APPENDIX A

Table A
Comparison of Three Leading Religious Preferences among
Students for Years 1966-1967 through 1969-1970

| Year | Total Preference Cards Received | Denomination | Number Express- ing Preference | Percent of Total Cards Received |
|-----------|------------------------------------|--------------|-----------------------------------|------------------------------------|
| 1966-1967 | 8,325 | Baptist | 3,104 | 37% |
| | | Methodist | 1,543 | 19% |
| | | Catholic | 1,048 | 13% |
| | | Total | | <u>69%</u> |
| 1967-1968 | 9,068 | Baptist | 3,353 | 37% |
| | | Methodist | 1,586 | 17% |
| | | Catholic | 1,273 | 14% |
| | | Total | | <u>68%</u> |
| 1968-1969 | 10,236 | Baptist | 3,790 | 37% |
| | | Methodist | 1,759 | 17% |
| | | Catholic | 1,409 | 14% |
| | | Total | | <u>68%</u> |
| 1969-1970 | 10,595 | Baptist | 3,699 | 35% |
| | | Methodist | 1,768 | 17% |
| | | Catholic | 1,463 | 14% |
| | | Total | | <u>66%</u> |

APPENDIX B

QUESTIONNAIRE

112

NAME _____ DATE _____
 LOCAL ADDRESS _____
 HOME ADDRESS _____
 LOCAL PHONE _____ HOME PHONE _____
 AGE _____ SEX _____ MARITAL STATUS _____

DO YOU HOLD MEMBERSHIP IN A BAPTIST CHURCH? YES _____ NO _____
 If so, at what age did you join the church? _____ years
 IF BAPTIST, WHAT TYPE OF BAPTIST AFFILIATION DOES YOUR
 CHURCH HOLD? (Southern Baptist, American Baptist, National
 Baptist, Independent Baptist, etc. If you do not know
 please so indicate.)

IS THE CHURCH THAT YOU ARE PRESENTLY ATTENDING A BAPTIST
 CHURCH? YES _____ NO _____

PLEASE MARK THE FOLLOWING QUESTIONS AS ACCURATELY AS POSSIBLE:

CHECK THE AVERAGE NUMBER OF TIMES PER MONTH THAT YOU
 PRESENTLY ATTEND EACH OF THE FOLLOWING.

| TYPE OF SERVICE | AVERAGE TIMES ATTENDED PER MONTH | | | | |
|--|----------------------------------|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| Worship Services <u>morning</u> | | | | | |
| <u>evening</u> | | | | | |
| <u>Sunday School</u> | | | | | |
| <u>Training Union</u> | | | | | |
| <u>Choir Practice</u> | | | | | |
| <u>Missionary Groups (such as</u> <u>Young Women's Auxillary</u> <u>and Brotherhood)</u> | | | | | |
| <u>Prayer Meeting</u> | | | | | |
| <u>Baptist Student Union Services</u> <u>(Vespers, Lunch-encounter, etc.)</u> | | | | | |

ARE THESE SERVICES LISTED ABOVE USUALLY ATTENDED AT A CHURCH
 IN YOUR HOME TOWN _____ OR HERE IN BOWLING GREEN? _____

WOULD YOU BE WILLING TO GIVE APPROXIMATELY TWO HOURS OF YOUR
 TIME IN PARTICIPATION IN A RESEARCH PROJECT CONDUCTED ON
 CAMPUS AT WESTERN? YES _____ NO _____

APPENDIX C

DIRECTIONS

The purpose of this session is to ask your cooperation in a research project which I am conducting with respect to students at Western Kentucky University who list their religious preference as Baptist. I am attempting to discover the personality characteristics of Baptist students.

In the next two hours, each of you will be asked to answer a series of questions concerning your likes, dislikes and values. There are no correct or incorrect answers to any of these questions. You should try to answer each question as honestly as possible, but you should not linger over any one item.

We shall be using three different instruments with the directions for each being explained prior to your answering the questions. When you finish the first test booklet, please stay in the room since we shall be starting the second series as soon as everyone finishes. After we have completed the second inventory however, we shall take a break. Please do not leave the building until all three instruments have been completed. If you must leave for some reason, please discuss this with me so that we may reschedule the remainder of your session.

Your answers are completely confidential and shall not be used for any purpose other than the research which I am conducting. If you should care to discuss the results of these inventories upon the completion of my thesis, please indicate this fact on one of the cards on the table. You may also indicate on the card whether or not you desire to receive an abstract of my thesis in appreciation for your cooperation.

1. Study of Values

(Distribute booklets and pencils)

Please fill in the top line on page 12.

(Read pages 1 and 7 aloud.)

When you complete the questions on page 10, please close the booklet and leave it on your desk until I pick it up. Please do not leave the room or disturb the others after you have completed your booklet.

II. Stern Inventory of Beliefs

(Distribute booklets and answer sheets)

Please indicate your name, date on your answer sheet.

(Read directions on the test booklet.)

Do not write on the test booklet. Make all of your responses on the answer sheet. When you have completed all

100 items, please leave the test booklet, with the answer sheet inside, on your desk. You may take a break until -----at which time we'll begin the concluding inventory.

III. MMPI

(Distribute answer sheets and test booklets)

(Give directions for filling in the name, sex, and age on the answer sheets.)

(Read direction on the front of the test booklet.)

You are free to leave when you have completed this last inventory. Thank you for your cooperation and your contribution to the area of scientific research.

NAME _____

DATE _____

I would like to discuss the results of my test
upon completion of the thesis. yes____ no____.

I would like to receive an abstract of this
thesis upon it's completion. yes____ no____.

APPENDIX D

119
106 Overbrook Road
Baltimore, Maryland 21212
December 1, 1969

Dear Student,

As a part of the requirements for a masters degree, I am in need of information from students at Western who are classified as seniors and who indicated at registration that their religious preference is the Baptist denomination.

Many ideas are floating around today as to the religiousness of our college students. My study will attempt to gain some factual information on the behavior of Western's students. Your cooperation in filling out, as honestly as possible, the accompanying questionnaire would be greatly appreciated.

Upon completion of the questionnaire please return in one of the following ways:

Drop in campus mail to: Pat Welch
Department of Home
Economics and Family
Living

Leave in the office of: Dr. William Floyd, Head
Department of Home
Economics and Family
Living
Room 302, Academic Complex

prior to December 17
or

Return by mail to: Mrs. Patricia Welch
106 Overbrook Road
Baltimore, Maryland 21212

WITHIN 10 DAYS

All questionnaires will need to be returned by the times listed above, so won't you please take a few moments Now and complete all items. Thank you for your time and cooperation.

Sincerely,

Patricia R. Welch (Mrs.)

106 Overbrook Road
Baltimore, Maryland 21212
December 30, 1969

Dear Student,

I appreciate your cooperation in the initial stage of my collection of data for my masters thesis through the returning of my questionnaire concerning attendance at religious services. I further appreciate your indication of willingness to participate further in the study.

It is my intention to fly to Bowling Green from Baltimore the week of January 5-9. Consequently, the following dates and times have been established for me to meet with you on campus:

Tuesday, January 6 -----3:00 p.m. to 5:00 p.m.
or 7:00 p.m. to 9:00 p.m.
Wednesday, January 7 ----10:30 a.m. to 12:30 p.m.
or 5:00 p.m. to 7:00 p.m.

All sessions will meet in room 302 of the Academic Complex. Please notify Dr. William Floyd or Miss Jane Thomas at 745-4352 as to the time when you would prefer an appointment. If you find none of the above times convenient, please indicate a time during that week when you would be free to participate.

Your assistance should contribute greatly to the completion of my thesis, which hopefully will provide significant information for persons interested in both psychology and religion. If you so desire, a brief abstract of my thesis will be mailed to you in appreciation of your help in my research. Dr. William Floyd, professor of psychology and Interim Head of the Department of Home Economic and Family Living, has also expressed a willingness to discuss certain information with you upon the completion of the thesis.

Thank you for your cooperation and the contribution which you are making to research.

Sincerely,

Patricia R. Welch

121
106 Overbrook Road
Baltimore, Maryland 21212
December 30, 1969

Dear Student,

I appreciate your cooperation in returning my recent questionnaire concerning your attendance at religious services. I apologize for writing to you again since you have indicated reservations about giving two hours of your time to help me collect data for my thesis. However, I must obtain additional subjects or my thesis committee will not permit me to proceed with the writing assignment. Of course, this would negate my receiving the degree.

Your having been in an academic environment for the past four years has shown you the great value that research has for all of us. Since you have received the benefit from the research of others, I sincerely hope that you will feel a desire to contribute to the world of research by participating further in this project.

I shall be flying to Bowling Green to consult with the participants of my study during the week of January 5-9 and have set the following times for sessions during which my data shall be collected. At these times I shall be able to further explain my study to you.

Tuesday, January 6 ----- 3:00 p.m. to 5:00 p.m.
or 7:00 p.m. to 9:00 p.m.
Wednesday, January 7 ----- 10:30 a.m. to 12:30 p.m.
or 5:00 p.m. to 7:00 p.m.

All sessions will convene in Room 302 of the Academic Complex. Please contact either Dr. William Floyd or Miss Jane Thomas at 745-4352 to indicate your willingness to attend one of these sessions. If you find that you are unable to attend any of these sessions, please leave word concerning a time that week which would be convenient for you.

As with most research projects in psychology, all information which you contribute shall be kept confidential and shall be used solely for the purpose of writing my thesis. However, should you wish to discuss certain information from the study, Dr. William Floyd, professor of psychology and Interim Head of the Department of Home Economics and Family Living has volunteered to discuss it with you upon the completion of my thesis. In addition, if you so desire, a brief abstract of my thesis will be mailed to you in appreciation of your help in my research.

Thank you for your past cooperation and for any which you should be willing to give in the future.

Sincerely,

Patricia R. Welch

February 4, 1970

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MEMORANDUM TO:

FROM: Elsie Dotson (745-2695) and Leron Curry (745-3195)

This letter is a request for help. Mrs. Wayne Welch (Pat to most of you) needs subjects from which to gather data for her masters thesis. She has written several hundred letters and made numerous phone calls--but she is still short on subjects to fit in one or two catagories. There possibly are several reasons why she is having difficulty obtaining enough students--one of which is the time that she was able to come to Bowling Green to test these subjects--just before final exams, and perhaps the other variable is not unrelated to the first--the subject must give her approximately two and one half hours of his time. These two factors have made it hard on her, but both were unavoidable. There is a third reason too, perhaps, and it is with reference to this third reason that we are calling on you. Since our graduate programs are so young here at Western, our students haven't become aware of the importance of participating in research. Possibly we haven't had the time to indoctrinate them with their responsibility to feed back into this great generator of facts--the research program. This call for help on our part is to ask you to appeal to certain students to participate in this research and in other projects, when it is possible for them to do so. This letter is not being written to all of the faculty at Western--only to those of you whom we know personally and have reason to believe would be willing to help out. We did try to select faculty from across the total university rather than within any one college.

Mrs. Welch is doing research on certain characteristics of students who are seniors at Western and who come from a Southern Baptist background. Enclosed is a list of the students who are classified as seniors at Western and who classified themselves as Baptist on their registration cards. Would you look over your class rolls in those courses for upper division students and see if any of these students are in your classes? If they are enrolled would you ask them to get in touch with Miss Susie Southern who is administering these tests for Mrs. Welch. Miss Southern will be testing at the following time and place: Wednesday, February 18th at 5:00 p.m. in room 320 Academic Complex, Thursday, February 19th at 3:00 p.m. in room 320 Academic Complex, Monday, February 23rd at 3:00 p.m. in room 320 Academic Complex. Miss Southern will give more details to the students at this time.

We are further asking that you explain to these students that they have a responsibility to research programs--that they have profited from the knowledge that others have gained in this manner and it is an opportunity for them to make a contribution to this body of knowledge. We certainly don't want you to pressure the student--I hope we aren't in any way implying this--but this is an opportunity and a responsibility of students and this will give you an occasion to begin helping them to learn this. The students who participate in this study will be given a resume of the research findings when the study is complete should they desire it.

If you feel that you can help us in the ways we have requested, we will be most grateful. In case you wish any additional information please call either of us at the numbers listed. I'm sure you've surmised by now that we are two of the members on Mrs. Welch's graduate committee.

March 27, 1970

Earlier this year you were contacted by mail by Mrs. Pat Welch and asked to participate in the research which she is conducting for her masters thesis. You filled out and returned a questionnaire for this research at that time. Quite frankly she is in serious need of your further assistance. She needs about two hours of your time, during this time you would take two personality inventories. Admittedly two hours is a lot of time for a senior at this time of the year, but Mrs. Welch's research is in serious jeopardy if she doesn't get a few more subjects. Your cooperation would mean so much to this research and as a student you realize the importance of research both to the body of scientific knowledge and to a fellow student attempting to complete their program.

You will be contacted by phone after the spring vacation for an appointment to take these inventories. An effort will be made at that time to set up a convenient time for you.

Your cooperation will be most valuable and sincerely appreciated.

Respectfully,

Wm. A. Floyd, Ed. D.
Professor and Head
Home Economics and Family Living

Elsie Dotson, Ph. D.
Professor of Psychology

125
106 Overbrook Road
Baltimore, Maryland 21212
April 25, 1970

Dear Student,

As a part of the requirements for my master's degree at Western, I am in need of information from students at Western who are classified as Juniors and who indicated at registration that their religious preference is the Baptist denomination.

Being a student, I am sure that you realize the importance of research to the body of scientific knowledge and that you will give careful consideration to the matter of contributing to the world of research yourself by participating in current studies. Although your time is in much demand at this time of the year, I earnestly request that you help me in my study by volunteering to participate in this research.

The data for my study will be gathered through the use of the inclosed questionnaire and a series of personality inventories. The inventories are the paper and pencil type in which you check your preference of items. As in all psychological testing, the answers you give are confidential and will be used solely for the purpose of my research.

I shall be on campus next week, May 4-8, to gather the data for my study. The inventories require approximately 2½ hours to complete and sessions will be scheduled each day, Tuesday, Wednesday, and Thursday, at the following times:

9:30 a.m. to 12:00 Noon
3:00 p.m. to 5:30 p.m.
7:00 p.m. to 9:00 p.m.

Choose a time which fits into your schedule and come to room 302 of the Academic Complex at that time. Please bring the enclosed questionnaire with you. If you find it impossible to participate during the times listed above, please return the completed questionnaire to me in room 302, either in person or by campus mail.

Thank you for your cooperation. It will be greatly appreciated.

Sincerely,

Pat Welch (Mrs.)

APPENDIX E

Unsolicited Comments on Questionnaire

"I joined a local church as a freshman and participated regularly in morning and evening services, Training Union, and choir for three years, but became disenchanted with the minister and have since discontinued attendance." (22 year old male who reported zero attendance)

"Sorry I can't help you more but I work full time in addition to going to school." (21 year old female who reported zero attendance)

"I don't attend church except when I go home (every three to four months) because I work on Sundays." (22 year old female reporting zero attendance)

"Due to the fact that I do not believe that the churches I am acquainted with in Bowling Green are in accord with what I believe I do not attend church here. However, while at home I do not miss any worship service unless severe conditions exist so that the roads are impassable." (21 year old male reporting attendance twice a month with membership in a non-affiliated Baptist church)

"I attend dorm devotions each Wednesday night at 11:00" (21 year old female reporting eight times per month average attendance)

"I just moved back on campus. Time conflicts for class, but hope to be a part soon."--written next to item listed Baptist Student Union Services (21 year old female reporting seven time per month average attendance)

"My church has none of the other activities where I marked zero." (22 year old female reporting attendance of ten times per month average.)

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